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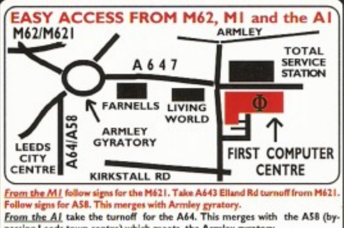
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ABC **Member of the Audit Bureau of Circulation**
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49 issue

Hello again! Even with the future of Commodore still in the balance, we have no trouble at all in filling another issue of Amiga Shopper...

Are you getting sick and tired of hearing about the sale of Commodore? Well, you may still be interested to read our news story on page 12 which reports on further developments in the long-running saga.

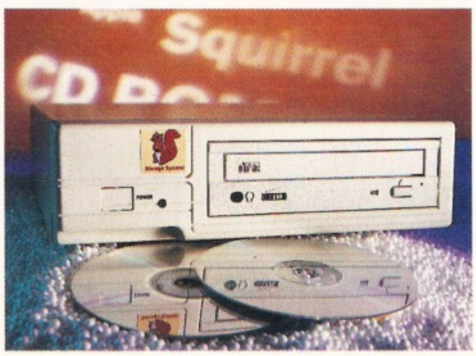
Do you remember filling in the Amiga Shopper Reader Awards forms back in issue 46? Richard Baguley has compiled the results and discovered which of the Amiga products you thought were outstanding in 1994. Turn to page 18 to find out if your favourite product won.

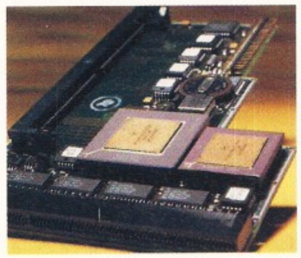


All you hip and groovy dudes (oh dear, that does reveal my age, doesn't it) will be thrilled with the fabulous music package that we have crammed on to Coverdisk 1 this month. Boom Box is aimed at just about anybody, from the complete beginner, to the musical genius and should give you hours of fun.

On the ShopperChoice second Coverdisk are a whole host of handy programs and utilities which will all make your life that bit easier. You will also find some Wordworth drawing tools to use in conjunction with Amiga Format's April issue Coverdisk.

And as CD-ROM drives have become so popular recently, the Supertest this month is all about them. There are quite a few already on the market, but would you know which one was best for your needs? Well, we aim to help you in your choice and so we put some of the best CD-ROM drives through a series of tests to find out which one came out on top.





Starting on page 34, you'll find the usual batch of reviews, including a comparison between three new databases – two of which earn Amiga Shopper Star buy awards – and a review of the Blizzard III Turbo (which is pictured above).



We have the second of Graeme's six-part Photogenics tutorials and a new face to Amiga Shopper, Darren Irvine, is our Comms expert this month. He steps into Wavey Davey's shoes and takes a look at Aminet and all the Amiga-related stuff you can access.

We featured a special version of DICE 3.0 on our issue 47 Coverdisk and now Toby Simpson raves about the program and then tells you how best to use it in his new DICE tutorial.

Another new face in the mag this month is Larry Hickmott, who is a DTP enthusiast and has joined our panel of experts. He will be answering all your DTP-related questions in Amiga Answers, so keep them coming in!

We've kept Jason Holborn busy again this month with the Public Domain pages. He focuses on the business packages available to help you manage your finances and keep track of your records and appointments.

If that isn't enough to keep you busy for the next month, I'll eat my boxing gloves! ■

Sue Grant, Editor.

Turn the page for the contents of issue **49**

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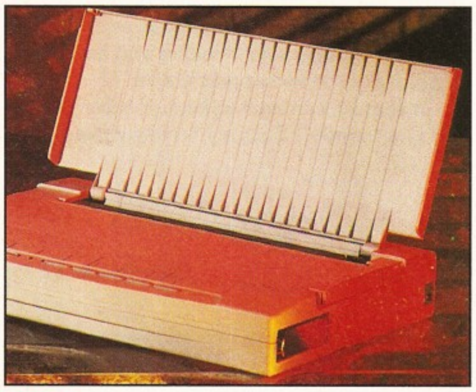
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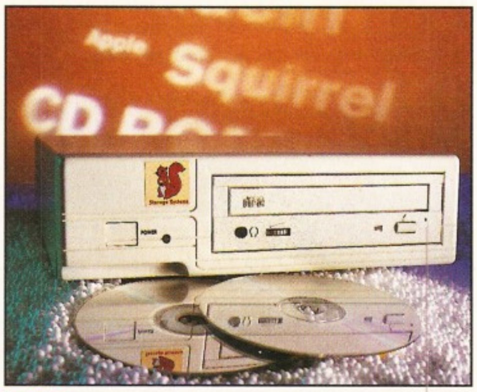
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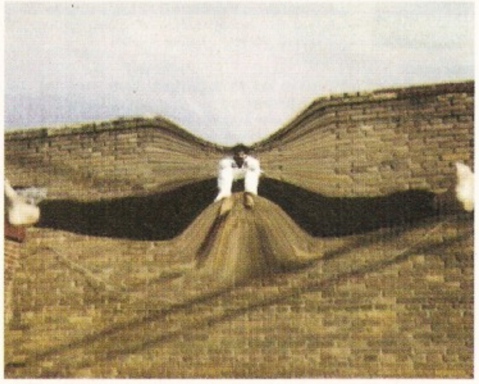
ShopperRegulars



18 *So, who did you all vote for? Who were the Amiga crème de la crème of 1994?*

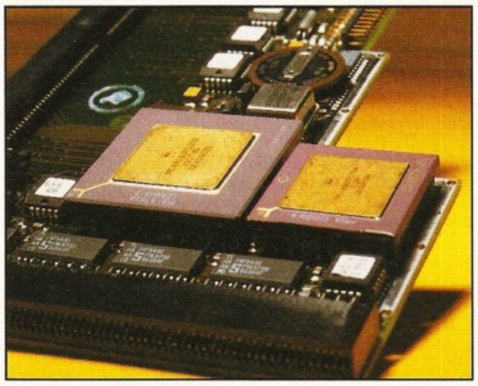


22 *Everyone wants a CD-ROM drive, but do you know which one to choose?*



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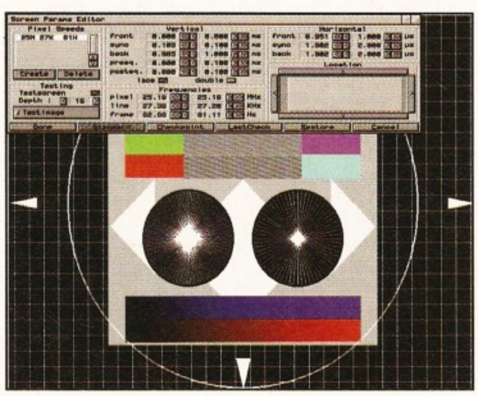
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53 *With Blizzard III, your Amiga could become the whiz-kid you've always dreamt of.*



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40 *The Piccolo-SD64 could perk up your flickering displays and flat graphics.*



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Shopper**Disks** – turn to page 6 for full instructions



On Coverdisk 1 we have the full version of Boom Box, a great interactive music program for people of all abilities. No previous experience is needed, just a love for music and fun! On ShopperChoice we have, amongst many other programs, Archandler, Imagine 3.0 textures and the usual source code files that make following our tutorials that much easier.



Disk 1

Coverdisk 1 this month contains a brilliant program for music lovers of all abilities. ***Tim Tucker*** *helps you to get to grips with Boom Box.*

On our Coverdisk 1 this month we have a wonderfully fun program for all you music lovers. You don't need any previous knowledge of music making to make the most of it and it will guarantee you many a sleepless night as you find new and exciting ways to mix music. Have fun!

What is Boom Box?

Boom Box is a hugely enjoyable piece of interactive music software that will appeal to music lovers of all abilities. You don't have to know anything about music, or play any instruments, to be able to use this program and all the sounds you need come straight from your Amiga.

Boom Box contains pre-recorded pieces of music, which you can mix and play sounds over, in real-time. It's just like having your own mixing desk built into your Amiga. Not only can you play digital samples, but you can re-arrange the musical sections and alter the sound levels of different instruments within the music, as you listen to it. You can also import your own samples into the program and you can save your mixes to disk and play them back at a later date.

Getting started

Getting started with Boom Box is incredibly easy. Just click (with the left mouse button) on the Play button in the middle of the screen, just underneath the graphic of the cassette tape, or press the Spacebar and you'll hear a piece of music known as Boom Box. This is the default file that loads into the program on startup. You can play samples over the top of the music by pressing any of the keys 1-6 on the Amiga keyboard. Each key has a separate sample assigned to it, so just play around to hear how each sample sounds with the music.

You can mix the levels of each of the four instruments that make up the music. To do this, use the mouse to click and drag one of the four sliders marked Drums, Bass, Synth and Solo. The corresponding part of the music will change in volume accordingly. If you want to make an instrument completely quiet, drag the appropriate slider all the way down to zero and it will be muted from the mix. To stop Boom Box, simply click on the Stop button, to the left of the Play button, or press the Spacebar again.

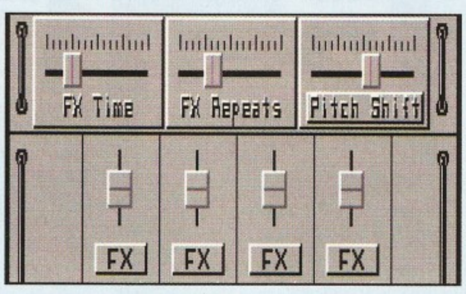
Once you've experimented with the sample buttons and sliders, it's time to try recording your ideas. Again this is simple. Click on the Record button to put Boom Box into Record mode. Click on Play and from then on any samples you play with the Amiga keys and



Experiment with the sliders while listening to the mix. Taking the slider all the way down will mute the entire instrument from the mix.

Sound effects

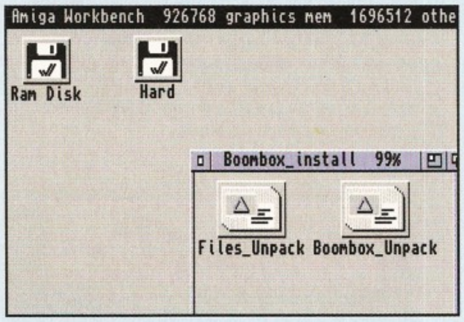
When you're in the Remix or Jam screens, you can make use of the FX section of Boom Box. Above each slider is an FX button. Click on this to send the part to the effects section. Above the FX button is another vertical slider. This sets the amount of the part that is effected by the effects section. Finally, you'll find three horizontal sliders. FX Time changes the duration of the effect. FX Repeats sets the number of times the effect is repeated. Pitch puts a pitch shift on the effect. In the middle there is no pitch change; to the left the pitch goes down, to the right it goes up. Experiment yourself to see what works best.



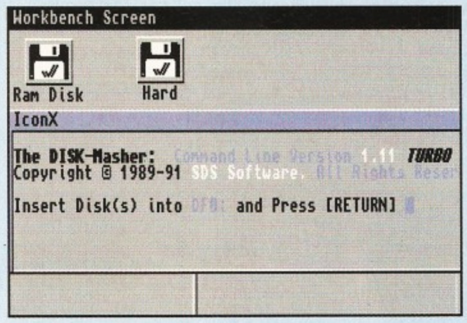


To load new samples into memory, choose the sample you want to replace from the Samples menu and you'll get this file requester.

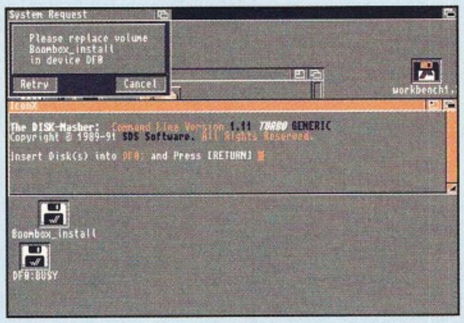
Step-by-step to Boom Box



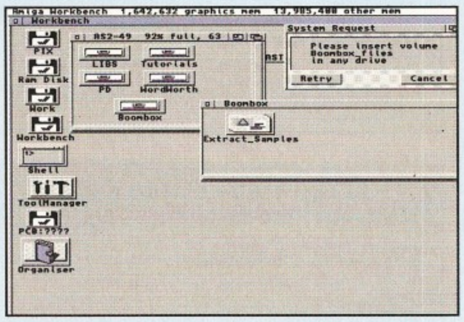
1. On this month's brilliant Coverdisk you'll find two files that you need to unpack to get Boom Box in working order. When both are unpacked, the complete Boom Box package will take up two disks, so you'll need two spare floppy disks (you don't have to format them) to unpack the program and files on to.



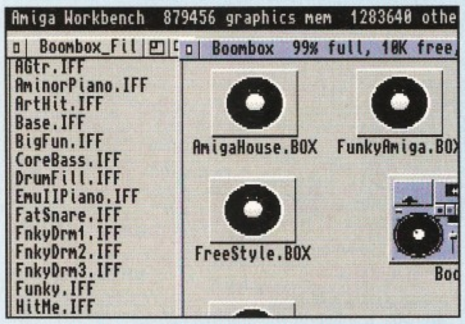
2. Double-click on the Boom Box_Unpack icon. The unpacking program will run and you'll be asked to put a floppy disk into Df0:. Follow the onscreen prompts and you'll soon have a new disk with the Boom. Double-click on the Files_Unpack icon and you'll be asked to put another floppy disk into Df0: to unpack the Boom Box Files disk on to. Again, follow the onscreen prompts.



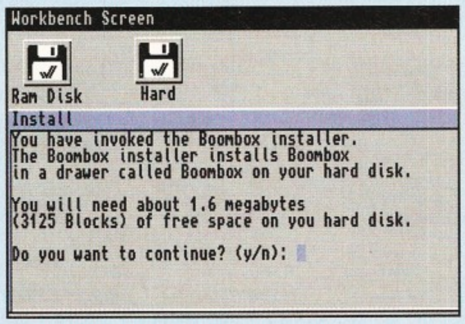
3. If you are running under OS1.3, or lower, you will be subject to a slight quirk on the part of DMS. Just before it's time to insert a blank floppy, you will be asked to re-insert Boombox_install. Don't – when you see several lines of text in the Shell window (as pictured above) insert the blank disk and click on cancel. If you have two floppy drives, you must insert Workbench in DF1.



4. Due to the large number of samples on the files, some of them had to be stored on the second Coverdisk (ShopperChoice). You'll find a folder on AS2 called Boom Box. Double-click on the icon inside, follow the onscreen prompts and the files will be extracted to the correct disk.



5. You should now have two floppy disks, Boom Box and Boombox_Files. If you have two disk drives, put the disks in both drives. If you only have one, be prepared for a bit of swapping. To run Boom Box, double-click on the Boombox icon. The program needs files from both disks to run.

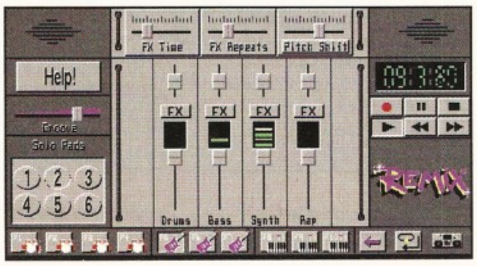


6. If you have a hard drive, you can install Boom Box on to the hard disk itself, Simply double-click on the Install icon in the Boom Box disk and follow the onscreen prompts.

any adjustments to the sliders, will be recorded into memory. Press Stop and the program will immediately revert to Playback Mode. Press Play again to hear the recording of your mix.

If you made a mistake, or you're unhappy with your performance, stop the playback and repeat the recording process to try again. The new recording will wipe over the old one automatically.

If you're happy with a mix, you will want to save it to disk. Choose Save from the Project menu and a requester will ask you where you want to save the mix to. Choose a floppy disk drive, or drawer on your hard drive and save as normal. The file will be saved with a .BOX file extension. Now you can load in your mix at a later date, exactly as you recorded it.



On the Remix screen you can add effects to the musical parts and play the samples using the onscreen buttons.

More music

Boom Box doesn't just provide one piece of music for you to play with. For a start, there are two more mixes of the default track to experiment with. Go to the Mode menu, choose Boom Box and you'll see a sub menu, where you can choose two alternative mixes – DanceMix and FreshMix. Play these and you'll hear that the sections of these have been re-organised into two completely different pieces of music and you can re-mix these yourself, as described above.

You can also load more songs into memory. Go to the Project menu and choose Open. Look on the Boom Box disk and you'll find some other songs that you can load in and start working on. The files you want have the file extension .Box. Check them out and have fun.

It's also possible to load your own samples to play over the top of the music. Any standard Amiga .IFF files are supported by the program and to load a new one into a sample slot, go up to the menu called Samples and choose one of the six samples in the menu. A requester box will open, asking you to choose which sample file you'd like to load.

You can choose another sample from the Boom Box disk, or you can load one of your own samples, created using a standard Amiga sampling program. Make sure that the file you choose has the file extension .IFF before attempting to load the file, otherwise it will not load into the program and may cause the software to crash. The IFF file will be loaded in place of the initial sample you chose.

The remix screen

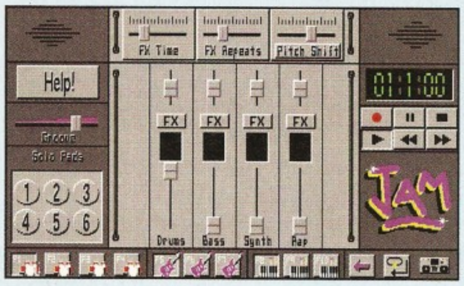
To go to the Remix screen, choose Remix from the Mode menu. The Remix screen works exactly like the Boom Box screen, but it allows you to have even more control over the song.

You should already be familiar with the Boom Box screen (see above), so let's look at the new features in the Remix mode. On the left of the screen you'll see a box marked Solo Pads. This offers an alternative way to play the samples in memory. Simply click on each

Pattern playing

The Jam screen is the most flexible screen in the program and allows you to do everything you can do in the other screens and more. To get to the Jam screen, choose Jam from the Mode menu.

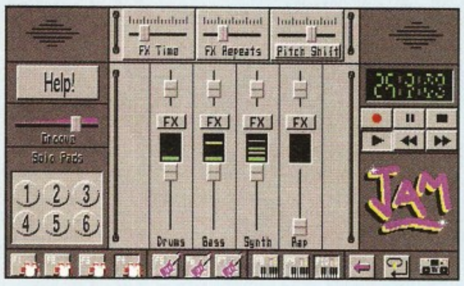
In the Jam mode, you really start from scratch to build your own mix. In most respects it works like the Remix screen, but unlike both the Remix screen and the Boom Box screen, there are no mixes to play around with, it's up to you to create them. You do this by specifying which patterns should be playing at which time. This is where we come to use the pattern buttons at the bottom of the screen. To get an idea of how the pattern buttons work, try going through the following steps.



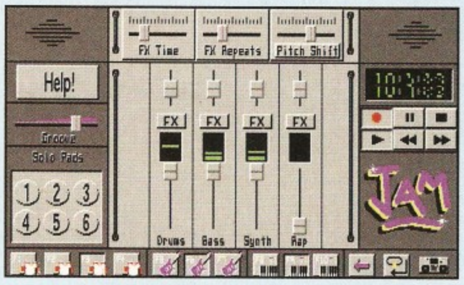
1. First mute all the parts apart from the drums by moving their sliders down to zero. Click on the Play button and you'll hear the drum pattern looping. Notice at the bottom of the screen that the first drum pattern button is depressed.



2. Click on the second drum pattern button. After the current measure, you'll hear the music change to the new drum pattern. Try all four drum patterns – some of them contain gaps and fills.



3. Now bring up the bass and keyboard sliders and try playing about with the patterns of each musical part. There are dozens of combinations of different patterns for you to try.



4. Now click on the Record button and record a mix. In the Jam mode, there's an easy way to mute a track. Just click on one of the pattern buttons that is already turned on and you'll turn it off, leaving no patterns playing on that track.

Help and groove

Clicking on the Help button (or pressing the Help key on the Amiga keyboard) brings up an on-screen help system. Simply click on any object on the screen while the Help mode is on and a window will open, telling you all about the object. Click on the Help button again to disable help mode.



On every screen you'll see a groove slider. Depending on which song you have loaded, this will have a different effect. On some songs, it changes the loop point in the sample. In others, it increases or decreases the speed of the song. Be careful though – although the speed of the music changes tempo, the drum break will always stay at the same tempo and will often clash with the musical parts if you alter the groove setting.

Menu items

PROJECT MENU

● Open
Use this to open a .Box file, which contains three mixes of a song, plus six samples for you to play and other music patterns.
● Save
Save your current mix to disk as a .Box file.
● About
Tells you about Boom Box.
● Help
This brings up an onscreen help system.
● Quit
Quit Boom Box.

MODE MENU

● Boombox
Takes you to Boom Box's main screen. There's a sub-menu from which to choose which mix you want to play with.
● Remix
Takes you to the Remix screen. There's a sub-menu from which to choose which mix you want to play with.
● Jam
Takes you to the Jam screen.
● Playback
Toggles Playback mode.

SAMPLES MENU

The items in this menu are the current sounds assigned to keys 1–6 on the Amiga keyboard. To load in another sound, choose one of the samples from the menu and a requester will appear.

button to play individual samples. You can also play samples with the 1–6 keys on the Amiga keyboard, as you could in the Boom Box screen.

Above each slider in the middle of the screen you'll see a button marked FX. Click on the button to apply special sound effects to a musical part. You can control the level of the part going to the effect using the additional slider above the FX button. For a full description of how the special effects work, see the FX Section box.

Another new thing you'll notice about the Remix screen is the row of buttons along the bottom of the screen. The first four are Drum pattern buttons (each has a picture of a drum kit on it). While the track is playing, one of the buttons will depress to show you which of the four drum patterns that make up the song is playing.

There are also four bass and four keyboard buttons along the bottom row. In the Remix mode, these buttons can only indicate which patterns are playing, but in the Jam mode (which we'll look at shortly), you can use them to choose which pattern to play at any time.

To the far right of the pattern buttons you'll find the Retrigger button (marked with a left pointing arrow) and the Loop button (a loop with an arrow). The Retrigger button plays the current bar that you're listening to. It re-plays the bar once and then carries on playing the rest of the song. The Loop button stays depressed after you've clicked on it and while turned on, continues to play the current bar and loop it indefinitely. To turn off the loop, click again on the Loop button and the song will continue to play as usual.

To familiarise yourself with the Remix screen, record another mix. This time, try changing the effect parameters by experimenting with the sliders at the top of the screen. Be careful, though, as the effects can be quite harsh unless used subtly. While you're playing, watch how the patterns change on the pattern buttons at the bottom of the screen. Once you're happy with the concepts here, you're ready for the Jam screen. This allows even more scope for remixing, by allowing you to control which patterns are playing at any moment. For a tutorial, see the Pattern playing boxout.

Hopefully this has helped to introduce you to the immense potential of Boom Box. As you can see, it's a relatively easy program to get to grips with and it's a real laugh to use. You can literally spend *hours* finding new and exciting ways to mix music, whether you are a beginner to the music making world, or not. So, don't hesitate – have fun! ■

"Hesitation is the thief of time"*

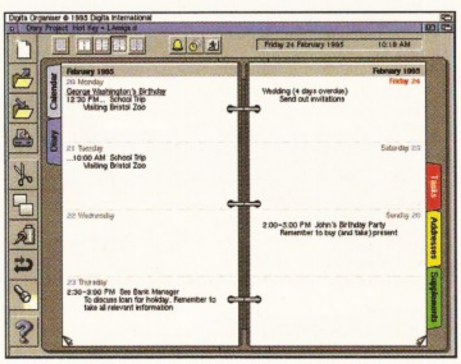
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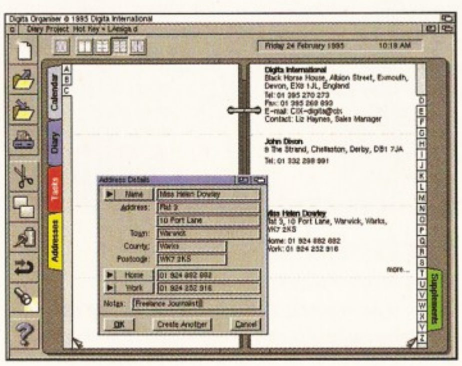
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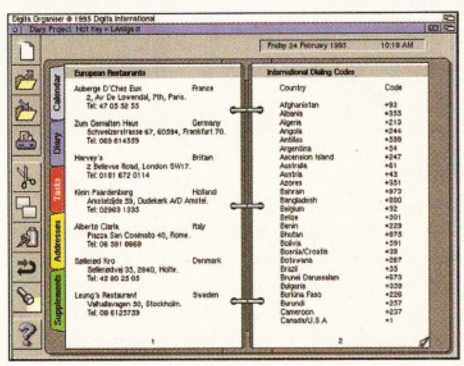
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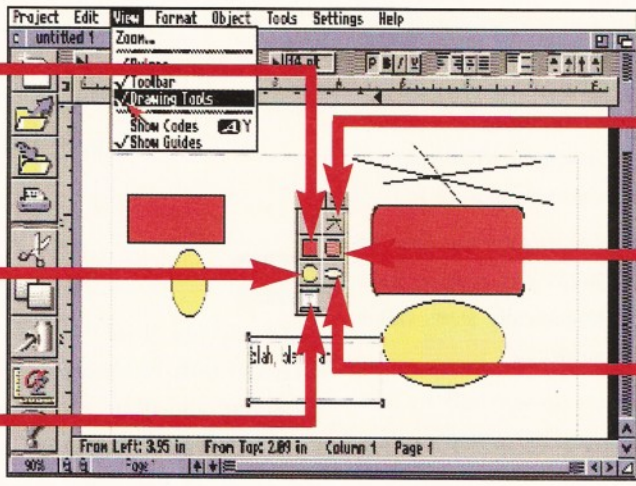
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Disk 2

On ShopperChoice, we've got a tasty little selection of PD, shareware and other useful files. ***Graeme Sandiford*** *puts you through the paces so you know where to look for a file and how to use it to its full extent.*



Use the box tool to draw filled squares. Simply drag the box to a size you're happy with.

The circle tool can be used to draw circles.

Draw text boxes using the text tool. The text can be moved as a single entity.

The Line tool can be used to draw straight lines at any angle.

The rounded box tool works in the same way as the box tool, but the edges of the boxes are smooth.

The Ellipse tool can be used to draw a filled ellipse shape.

Wordworth drawing tools

If you look very closely at this month's second Coverdisk you might just be able to catch a glimpse of a tiny file – under 15K in size. Can't see it? It's in a folder called Wordworth. Despite its diminutive size, this folder contains something wonderful. No, not Wordworth, it's some useful drawing tools that can be used with the special AFC version of the program given away in issue 70 of Amiga Format.

To install them, just drag the file inside the folder Drawing Tools to a copy of your AFC disk and put it into the modules drawer located on the root directory of the disk. To find out what the tools do, have a look at the annotated screen grab to the left.

PD programs

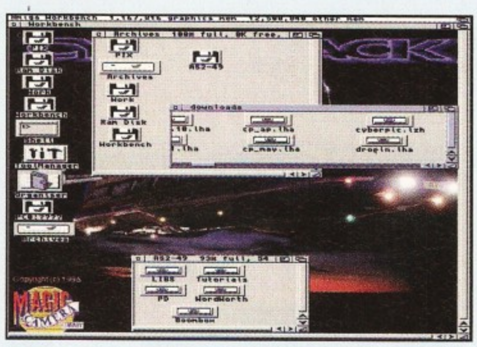


Lens

Workbench 2+ required

This month we have a wide selection of quality PD and shareware programs. First up is a cute little program called Lens. I'm not sure what sort of practical use it could be put to, but it is fun.

Lens acts like a magnifying glass for your desktop – it displays an enlarged image of a limited area under your mouse pointer in a window. I suppose it might be useful to someone who is extremely short-sighted.

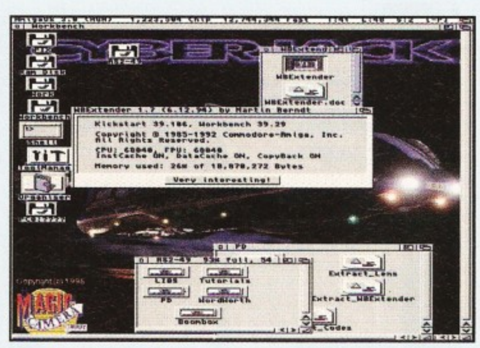


Archandler

Workbench 2+ required

This is a product that I was a little wary of at first, mainly because I didn't understand it. Archandler enables you to view archive files as if they were directories – spooky, eh?

After running the program, a disk icon called Archives appears on your desktop. By double-clicking on this icon, you can gain access to all the currently available drives and any archived files that are found are treated as directories themselves. What's more, the files inside the archive can be treated as if they had been unarchived. So, you can view pictures, or even run programs. Full instructions are in the Guide document.



WBExtender

Workbench 2+ required

You can never know too much about your Amiga and it always pays to know what is going on at any given time. The Workbench screen's titlebar quite happily informs you how much free memory you have, but not much else.

WBExtender however, is brimming over with useful information about your system's activities. It replaces, or, more exactly, augments, Workbench's titlebar and the About menu. It can tell you which Amiga OS you're working under; the chipset; the number of tasks being performed; how many libraries are in use; how many screens are opened; what's attached to your parallel and serial ports; which CPU you're using and loads more.

Dodgy disk?

If your disk absolutely refuses to work and you are certain it is faulty, please return it, along with an SAE, to:

Amiga Shopper Coverdisk (insert the name of the disk), Discopy Labs Ltd., PO Box 21, Daventry, NN11 5BU.

Useful libraries

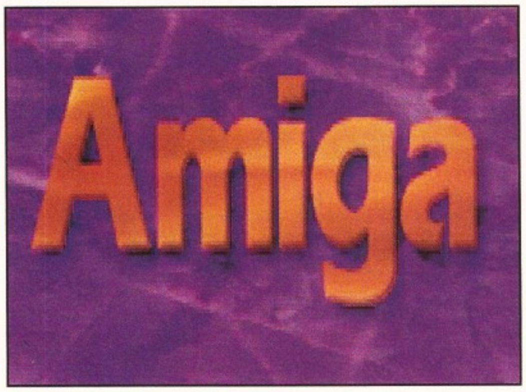
If you have experienced difficulties with any of the programs from previous Coverdisks, it's likely to be the result of not having the correct libraries.

For example, DMSui, given away with issue 47, needs the ASL.library. To fix this problem we've included some of the more common non-standard libraries on this month's disk – you'll find them in the libraries directory.

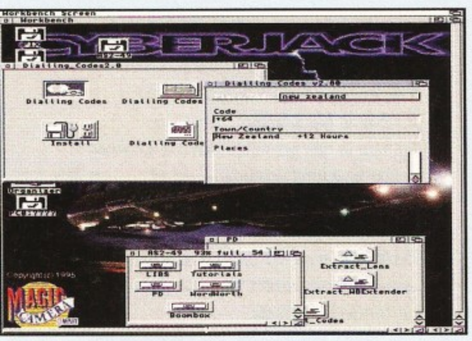
Tutorial files

As usual, we have included some files on the Coverdisk to make following our tutorials that much easier. The files can be found inside the Tutorial drawer on the second Coverdisk.

Last issue, we were unable to include the Assembler and C programming source files, so you'll be glad to know that this month's files include what was covered in previous tutorials, as well as the one in this issue. We also have some JPEG images to accompany our Photogenics tutorial, which can be used at key stages of the project.



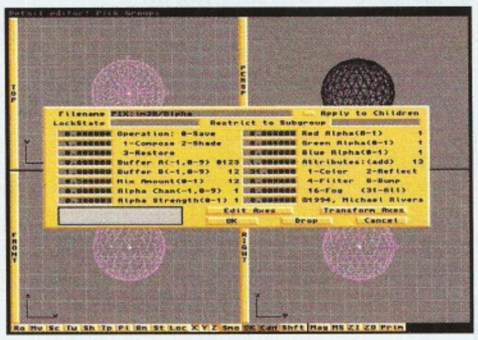
Make one of these with this month's instalment of our Photogenics tutorial – and a copy of Photogenics!



Dialling Codes 2.0

You may, or may not, be aware of it, but 16th April is PhoneDay. No, this has absolutely nothing to do with Bob Hoskins – mercifully. This is the day that the UK phone numbers will change.

Dialling Codes 2.0 is a program that can find an area code to match the name of a city, or match the name of a city with its area code. The best bit is that it takes into account the new numbers. Not only that, but it also has over 170 codes of international calls. Again, use the installation scripts and read the documentation.



Imagine 3.0 Textures

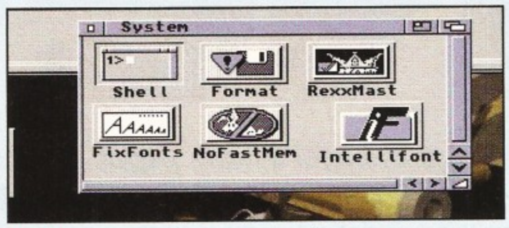
FPU version Imagine 3.0 required

One of the best things about Imagine 3.0 is its huge number of algorithmic (mathematical) textures. Unlike bitmap textures, these can be resized without any loss in quality.

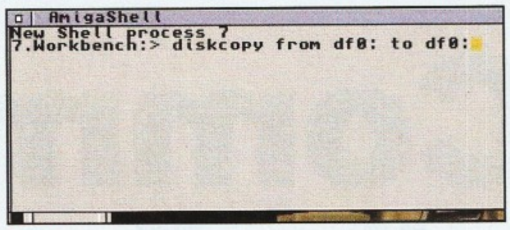
These files are textures that can be used to produce some interesting effects, especially when animated. For example, one of the textures makes it possible to change an object's attributes back and forth over a period of time, so that it appears to flicker between two different forms. These textures are shareware, so please remember to register them if you find them useful (it's only $5 after all).

Back up that disk

Before using either of this month's Coverdisks, please be sure to back them up – just in case. Simply follow the easy instructions below if you are not sure how to do this.



1 ***Boot up from your Workbench disk or partition, double-click on your Shell icon – to be found in your system drawer.***

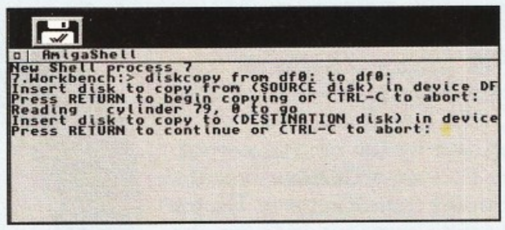


2 ***If you only have one disk drive, type in the following line and then press return.***

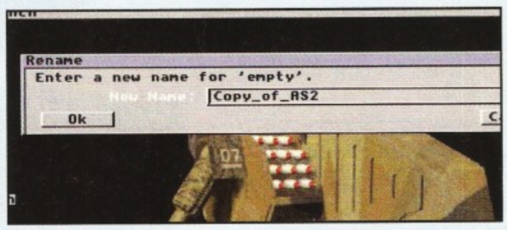
```
Diskcopy from DF0: to DF0:
```

If you have two drives, place the Coverdisk in DF0: and a blank in DF1:, then type in the next line instead.

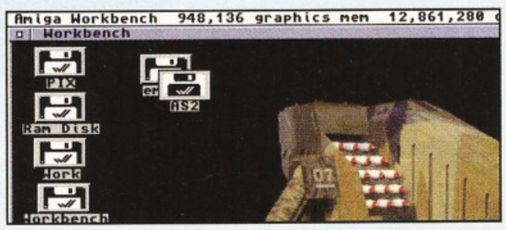
```
Diskcopy from DF0: to DF1:
```



3 ***Follow the on-screen prompts and remember that the Coverdisk is the source disk and the blank is the destination.***



4 ***If you used the two-drive method, remember to rename the copy by clicking on its icon and pressing right-Amiga <r>.***



5 ***If you have two drives, you can also copy the disk from Workbench by dragging the Coverdisk icon over the destination disk's one.***

News

In Amiga Shopper's news pages this month: three bids for Commodore; FutureNet on the Internet; previews of DeluxePaint V and Organiser; Spotlight 1995 Atari & Amiga Show; The Amiga in new sci-film; Latest on OctaMED V6.

Commodore – the final furlong?

Will it be a photo finish?



A bid of US$6m has been made for the assets and intellectual property rights of Commodore International. The bid, which has yet to be approved by the courts, comes from Escom, a German-based computer manufacturer. Escom had made previous bids for the company soon after its liquidation was announced, but more recently were content with separate negotiations for the Commodore C= trademark, which they hoped to use on their own PCs.

Escom are Germany's second largest computer company and seem intent on expanding into the UK market. They already own 24 retail outlets here and are apparently in negotiation with Thorn EMI for the leases of the 231-strong Rumbelows chain of shops. If Escom are successful in their bid for Commodore, and if they acquire all of the Rumbelows' shops, they will have a huge, ready-made chain of High Street stores to sell the Amiga through, as soon as they could get the machines back into production.



Last month, the American chain of retailers, Creative Equipment International (CEI), also re-entered the bidding for Commodore, so there are now three contenders for the ownership. Alex Amor, president of CEI, was previously reported to be willing to pay up to US$24m for the company. The assets have certainly lost value since then, but it seems that all three bidders have the means to pay far more than the company is currently worth.

In response to the news, the Commodore UK team have said they are "looking forward to entering the bidding process with Escom". Colin Proudfoot and David Pleasance (pictured below) recently visited the CeBIT 95 Show in Hanover in Germany and were drumming up support from developers there.

Under the original terms of the liquidation, the final phase was to take 14 days, but the Commodore UK team believe that it could actually take six weeks before a result is announced. Watch out for further developments reported in next month's Amiga Shopper on sale on Tuesday, 2nd May. We will keep you up-to-date.



Escom were originally only after the rights to the Commodore logo. David Pleasance and Colin Proudfoot now have two rivals to outbid.

Titbits

OctaMED

The brilliant music-composer OctaMED V6 will be on sale in April.

UK orders for the English translation, which costs £34.99 (including manual), are available from RBF Software, 169 Dale Valley Road, HollyBrook, Southampton S016 6QX. (If you are a MED User Group-registered member, then you are eligible for a discount on the price quoted.) If you are based outside of the UK, contact ☎ 01703 511325 for more details of prices and availability.

Join the club – for less

The Independent Commodore Products Users Group, generally known as ICPUG, is one of the biggest and oldest computer User Groups in the UK. They are now offering a special cut-price membership deal – £16.50 in the UK, £20.50 for Europe and overseas surface mail, and £27.50 for overseas air mail.

Members will benefit from expert help and advice, free PD software and will receive a copy of the ICPUG journal every month. You can phone ICPUG on ☎ 01235 815725 (after 8.30pm) or E-mail them at digits@cix.compulink.co.uk

Bit.Movie 95

The popular Italian computer art festival is back again. This year Bit.Movie will be held from 13-17 April in the beautiful seaside town of Riccione. For those of you that don't already know about this festival, Bit.Movie is an art festival dedicated to computer animation and computer-generated pictures.

There are awards for entries in the animation and still images competitions, as well as other activities. Unfortunately, it's too late to get your entries in *this* year, but that's no excuse not to get started on a project for next year's event. If you want to find out more about this annual event and how to enter, write to: Bit.Movie '95, Via Bologna 13, 47036 Riccione, Italy.

You can also E-mail the organisers at bitmovie@mclink.it, or even download files from their anonymous FTP site – cnuce-arch.cnr.it

Modem mania

Upgrade your Supra V Class modems to V34, as well as V Fast class, by sending your modem to: Modem Upgrade Department, First Computer Centre, Unit 3, Armley Park Court, Stanningley Road, Leeds LS12 2AE. The upgrading costs £74.99, including return postage.

Make sure you pack your modem well and send it either by recorded or registered delivery. This offer is valid from 1st April 1995 to 20th June 1995 only. Call First Computer Centre on ☎ 0113 2319444.

Foreign access

If you happen to be in North America, or you want your PD programs to be available to North American users, then you could look up MGH Soft who offer Amiga users access to the 'foreign' PD and shareware market. Contact MGH Soft at PO Box 102, Ashland, WI 54806, or ☎ 0101 715 746 2008.

Into the valley

United Public Domain used to consist of three companies: NBS, Valley PD and Blitterchips. Now Valley PD have asked us to tell you that they have left the trio, but United Public Domain is still trading under the same name. So, if you want to order anything from United Public Domain, don't send your money or orders to Valley PD!

Dawn raid

As we said in the letters page of our March issue, we have received quite a few complaints from our readers who have had dealings with Total Computer Supplies and WTS Electronics and been bitterly disappointed. You may, therefore, be interested to hear that according to the Luton On Sunday newspaper both companies were recently raided by the Fraud Squad.

New storage units for the Amiga

Premier Developments have just finished work on a new unit, the Combi-Centre, to house the CD^{32}, along with its SX-1 expansion, a monitor, keyboard and disk drive. The unit costs £49.99 and one is in the works for the A1200 and the possible re-introduction of Commodore's top-loading CD1200 drive.

To place an order, or to find out more, call Premier Developments on ☎ 01487 823684.

Get in print with...



Fargo have announced the release of a new, high-quality colour printer. The Fargo Pictura 310 can produce 24-bit colour images up to A3 in size. Its printing resolution is 300x300 and can accept paper sizes up to 12x20". The printer will cost $4,995 (about £3,120). Call Fargo on ☎ 0101 612 941 9470 for more info.



Seikosha have a new 9-pin printer. The MP-5450 can print at speeds between 62 and 300cps. It has four resident fonts and an optional colour printing function. It has a recommended retail price of £349. To find out more about this new printer, call Seikosha on ☎ 01753 685873.

Spotlight 1995

Another show to mark in your diaries is the Spotlight 1995 Atari & Amiga Show.

According to the organisers, Gasteiner Technologies, the show will be aimed at the "more cerebral Amiga and Atari user", so if you think you fall in to this category, then get along to the Novotel in Hammersmith on 10th and 11th June.

The doors open at 10am and the tickets will set you back a very reasonable £5. For advanced bookings, or just some more information about the event, call ☎ 0181 345 6000.

FutureNet

All you Internet freaks out there can now gain access to the brand-new FutureNet absolutely free.

Those of you who have access to the Internet, may be interested to know that Future Publishing have set up an area called FutureNet. The aim is that, eventually, each of Future's magazines will have their own area on the network featuring information about the magazine, what to look forward to in future issues, the latest news, and you can even buy mail order products.

Accesses to FutureNet are growing by more than 10 per cent per week and the Amiga magazine pages are the most popular (not surprisingly). The Amiga Shopper pages on Futurenet can be contacted on: **http://www.futurenet.co.uk/computing/amigashopper.html**

Meet our siblings...

Amiga ??

Yet again, it is time for me to tell you how good another magazine is. To make it a bit more interesting this time, I'm not going to tell you the name of the magazine.

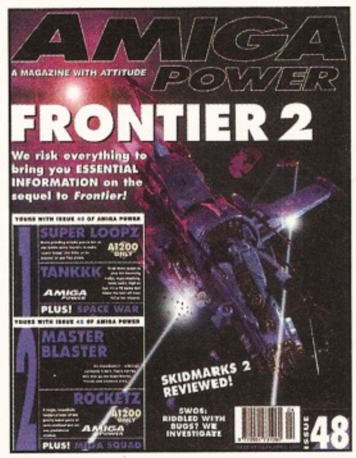
It will have a very special disk for aspiring musicians – Bars & Pipes Professional, including the Internal Sounds Kit. This will enable you to get up to all sorts of musical wizardry, and includes MIDI and SMPTE generation features.

You won't want to miss this magazine, because it has the best ever serial-linked games feature, reviews of DPaint V, a huge collection of CD-ROMs under scrutiny and, perhaps, if you're lucky, the latest news on Commodore.

You won't want to miss it and, let's face it, you're not going to be able to, because there'll be a huge psychedelic picture of Jimi Hendrix on the cover.

You have been warned. Watch the news-stands on Thursday, 13th April.

Nick Veitch
Editor



Amiga Power

You'd be amazed at some of the letters we're sent here at Amiga Power. "Have more reviews of printers, disk drives etc.," they beg, oblivious to the fact that Amiga Power is a *games only* magazine.

"Why not have more Coverdisks?" they ask, when we're already *coughing up blood* to bring you two fantastic ones each month.

"Print more reviews," they order, when we already review every single new Amiga game thoroughly and truthfully.

These are the people who will fail to appreciate the April Amiga Power's in-depth feature about Frontier 2, its excellent Super Loopz demo, its exclusive review of Super Skidmarks, its investigation of the bugs in SWOS, and its feature on the future of video gaming.

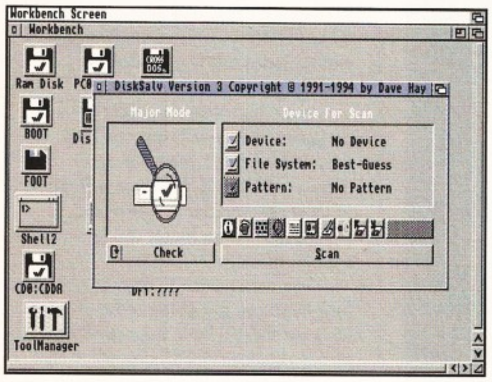
We discard them utterly.

Jonathan Davies
Editor

DiskSalv goes commercial

One of the Amiga's oldest and most popular PD packages has gone commercial with its latest version. You can still perform the usual tasks, such as checking your disks for problems, salvaging lost files from damaged disks, unformatting disks and undeleting files. DiskSalv 3 also has support for all AmigaDOS file systems right through to 3.1, a new back-up function and a special clean-up tool. Hopefully, we will have a full review of DiskSalv 3 in our June issue.

DiskSalv 3 costs £30 plus p&p. Contact Almathera on ☎ 0181 687 0040 for more information.



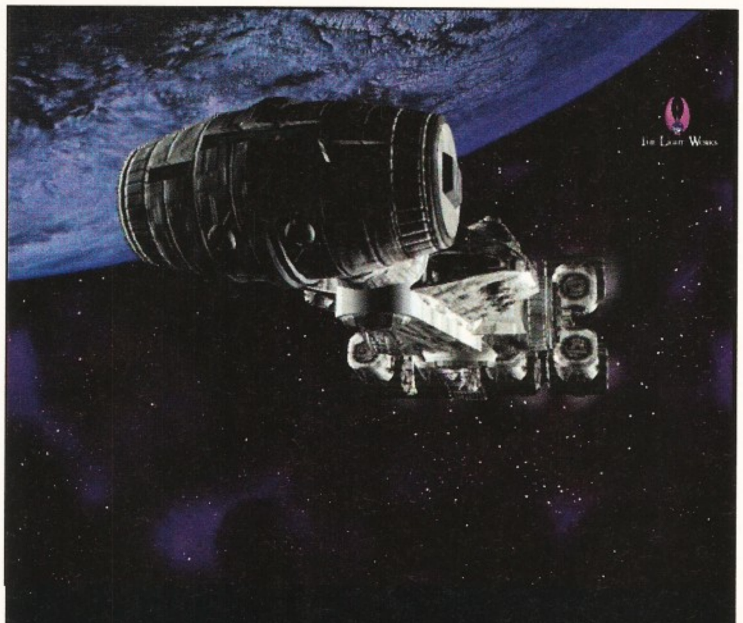
The ever-popular DiskSalv goes commercial with its latest upgrade.

The need for Cyberspace cops

As a result of the recent hype surrounding the Information Superhighway, people have been rushing by their thousands to jack into the Net. However few have taken the time out to consider how safe their information is.

The University of Teeside have been prompted by the increase of problems such as pornography, copyright infringements and even racism, to hold The Governance of Cyberspace Conference. This event will be held from 12th-13th April and will focus its attention on the social and political ramifications of an uncensored global network. Of course, one of the chief causes for concern is the privacy of information – many people are unaware of the dangers of disclosing things such as credit card details.

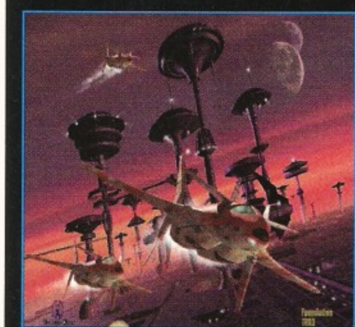
The conference fee is £80 and accommodation is available at £30 per night. Bookings can be made through Suzanne Raine at the School of Human Studies, University of Teeside, Middlesborough, TS1 3BA. You can also obtain further information by contacting Brian Loader whose E-mail address is **B.D.Loader@Tees.Ac.UK.**



CD-boom continues

Yes it's another new CD-ROM and, yes it is from Germany. The LightWorks Digital Imagery is packed with 3D objects. Nothing new in that, you might think – however, the objects have been created by that living 3D-legend Tobais Richter.

The objects are stored in three different formats: Imagine, Cinema 4D and Reflections. With regard to the quality of the objects, we don't need to say much more than they are made by Tobais. They are mainly models of spaceships and include such favourites as the Millennium Falcon, several variations of the TIE fighters, the DS9 station and uh… Darwin from SeaQuest DSV. All of the objects are complete with 24-bit textures and are ready to render from disc.



The disc also contains several PD objects, a demonstration version of Cinema 4D, a demo version of Reflections and a selection of gorgeous rendered images from the master.

A UK distributor has not been announced yet, but we'll be reviewing it soon. Don't miss it!



The special effects for the sci-fi film Cyberjack are made on an Amiga.

The Amiga used in new sci-fi film

Cyberjack is a new science-fiction film set to be released later on this year. You've probably already guessed that the special effects are being produced on the Amiga. In fact, all of the special effects are being produced by the UK-based graphics production house, The Magic Camera Company.

The storyline is centred around some ne'er-do-well terrorists who are intent on ridding the world of computers with a special virus, and a cop who's out to stop them. As well as the special effects, the film includes computer-generated vehicles, as shown here, and cityscapes.

The image on this page was created using an A4000 040 with WarpEngine, in conjunction with a Raptor Plus rendering engine with 128Mb of RAM (see issue 43 for more info on the Raptor Plus). The SkyBus object in these pictures contains some 43 lights, 24 texture maps and is made of 15,000 polygons. Each image took approximately 3-4 minutes to render, at a resolution of 2048x1234, on the Raptor.

These images were obtained from CIX's excellent Amiga-3D conference **(Cyberpics.lzh)**.

First

Graeme Sandiford *gives you a first peek at what is up and coming on the Amiga.*

DeluxePaint V

We've waited and we've waited, and now one of the programs that helped make the Amiga what it is today has finally received another upgrade. DPaint V, from Electronic Arts, has seen the light of day at long last. We'll be doing a full review next issue, but for those of you who just *can't* wait a whole month we're going to take a quick look at some of version V's new features.

One of the most popular features to have in an art package nowadays is emulation of real-world drawing and painting mediums. This is with good reason, because using these tools can both make your drawings more realistic and help artists who are used to working on more traditional mediums make the transition to electronic art. DPaint V comes with several media types including: chalk, felt tip, oil and watercolours. To complete the feel that you are working with real-world materials, DPaint comes with several textures as well.

A very interesting new feature is the mouse and tablet tracking. It helps to reduce the jagged edges and sharp angles that you often get when drawing freehand with a mouse or tablet. It does this by buffering and smoothing the cursor's movements as you draw.

Another great addition is the inclusion of an ARexx port. This will enable external control of DPaint, as well as making the creation of macros possible. As well as these new features, DPaint has generally undergone several tweaks and enhancements. These include loading and saving 24-bit data, an improved airbrush, support for HAM graphics modes, improved animation tools, better control over gradient and translucency tools, an enhanced light table and more.

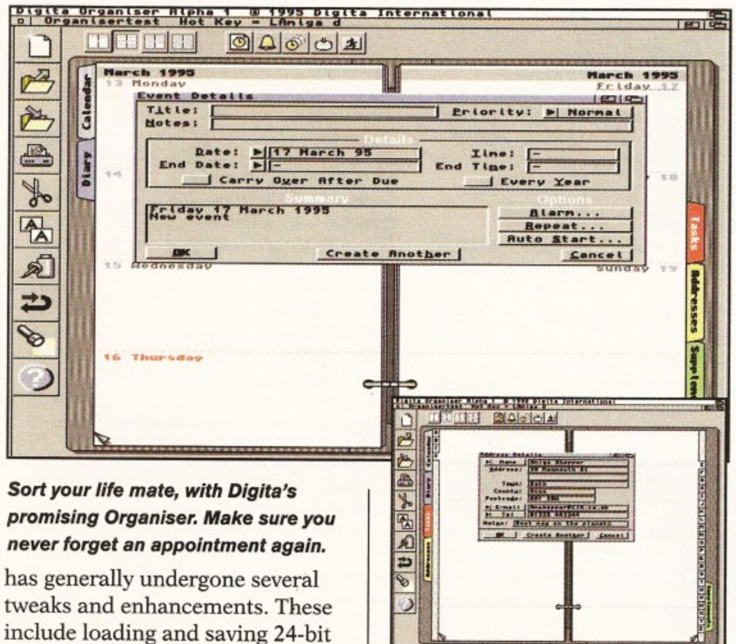
A price has yet to be announced, but look out for copies in the next month or so. If you want information on Dpaint V, call EA on ☎ 01753 549442.







Version V of the mother of all Amiga painting packages is finally finished. Here are some examples of what can be done with this popular program.



Sort your life mate, with Digita's promising Organiser. Make sure you never forget an appointment again.

Organiser

Do you remember when Filofaxes were popular and everyone had one, even if they didn't need one? Well the 80s are over, but people still need to organise their lives. Digita have decided to give a helping hand by creating Organiser – a Filofax for your Amiga.

Organiser even looks like a Filofax because it follows a similar organisational structure. The advantage of this is that it's very easy to use. You can turn from page to page and access sections of the program by simply clicking on an area of the screen.

As with Digita's other products, Wordworth and Datastore, Organiser has plenty of large colourful icons to make using the program easier.

The program also makes use of Digita's Digisense feature. This feature intelligently completes entries for you, such as dates – it can also understand expressions, such as today and tomorrow.

There are five main parts to the program: Calendar, Diary, Tasks, Addresses and Supplements. The Diary is where you input events that you wish to be reminded of. As well as setting an alarm for a specific date, you can select alarms that will go off on a yearly, monthly, weekly, or even daily basis – great for remembering anniversaries and setting the video to tape Babylon 5.

One of the most promising features is the Supplements section. At the moment, it contains a dialling code directory, but it can accept data in ASCII format which means you can create your own supplements.

It's still under development, but looks like a promising product and if it can help organise my life, it can organise anyone's. Digita can be contacted on ☎ 01395 270273. ■

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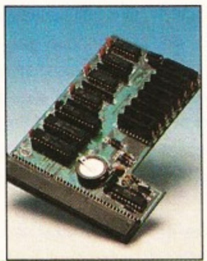
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From M62 junction 17, head towa Bury. We are 50 yards on the right after the third set o traffic lights, opposite Masons pu

All prices include VAT. postage a packing will be charged at £3.50 per order (U.K.), £7.50 Europe and £12.50 rest of the World.

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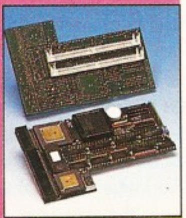


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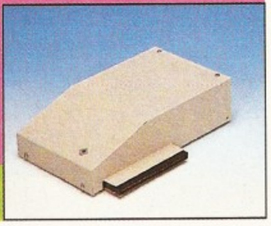
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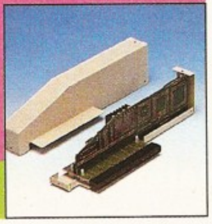


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Reader Awards



And the winner is... **Richard Baguley** *examines the long-awaited results of the Amiga Shopper awards.*

And the winners are...

DTP/WP Programs
★ 1st – Wordworth
2nd – Final Writer

3D Programs
★ 1st – LightWave
2nd – Imagine

Animation Programs
★ 1st – DPaint
2nd – Clarissa

Image Processing Programs
★ 1st – ADPro
2nd – ImageFX

Business Software
★ 1st – Professional Calc 2
2nd – Turbo Calc 2/Mini Office (joint winners)

Video Software
★ 1st – Scala MM500
2nd – Adorage

PD/Shareware Utilities
★ 1st – Image Studio
2nd – SnoopDOS

PD/Shareware Animations
★ 1st Eric Schwartz stuff
2nd – Last Stand on Hoth

CD-ROMs
★ 1st – Aminet 3
2nd – Aminet 1

Printers
★ 1st – Canon BJ10sx
2nd – Epson stylus colour

Accelerators/RAM Cards
★ 1st – Blizzard 1220/4 and Blizzard 1230-II
2nd – Warp Engine

Scanners
★ 1st – Epson GT6500
2nd – Power Scanner

Modems
★ 1st – US Robotics 288 Sportster
2nd – US Robotics Sportster 14,400

Hard Drives & Interfaces
★ 1st – Overdrive
2nd – Z3 Fastlane

Video Hardware
★ 1st – Pro Grab 24RT
2nd – Vidi Amiga 12

Thanks to all our readers who sent in their nominations. We hope they will be a guide for your decisions on which products to buy for your Amiga.

In the February issue of Amiga Shopper we asked you to name your favourite Amiga software and hardware for 1994. We also asked you who you thought was the Amiga personality of last year. Well, we had hundreds of entries and we passed them all on to Richard Baguley, who spent days and days sifting through them all before coming up with the results. This is his story...

"At the end of last year, we here at Amiga Shopper decided that it was about time that we tried to figure out what were the best Amiga products available. We considered working it out amongst ourselves, but who gives a monkeys what we think? So, we decided to ask one of the most knowledgeable, streetwise and sexy bunch of people we could think of: the readers of Amiga Shopper.

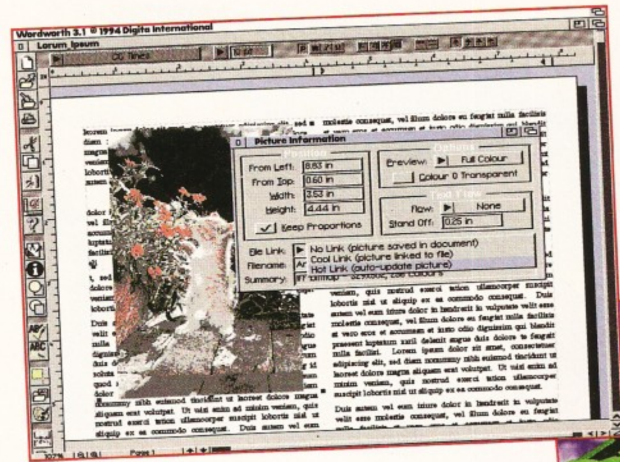
And so the Amiga Shopper Reader Awards were born. We asked you what you thought were the best products in a number of categories and you voted with your feet. Well, with your pens anyway. Except for those technically sophisticated amongst you who used E-mail. But I digress.

The rules were very simple. Each entrant could vote for one product in each category. Votes for different versions of the same product were counted together. So, if somebody voted for Final Writer 2 and somebody else for Final Writer 3, both votes were put together when the count was made. The only exceptions to this were when products were radically different in terms of price or design, so Vidi 24RT and Vidi 12RT were counted separately.

On these pages you will find the winners in the various categories, including the coveted title of 'Amiga person of the year'. Although many of the winners weren't a real surprise, some categories produced unexpected results.

For instance, there was no surprise with the winner in the animation program category with DPaint getting the first prize, but the second prize was a bit of a shocker, with Clarissa beating off some fierce competition from the likes of Brilliance and Personal Paint to take the second prize. Perhaps the fact that it was on an Amiga Format Coverdisk influenced this result.

Close behind was Almathera's new paint program Photogenics, which for a program which was only released two months ago is pretty good going. Once again, I expect that having a demo



Left: Wordworth is the Amiga's best DTP and word processing package.



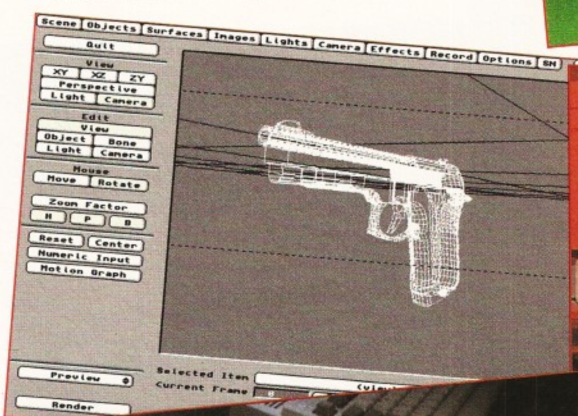
Right: The Epson GT6500 scanner deserves its number one position.



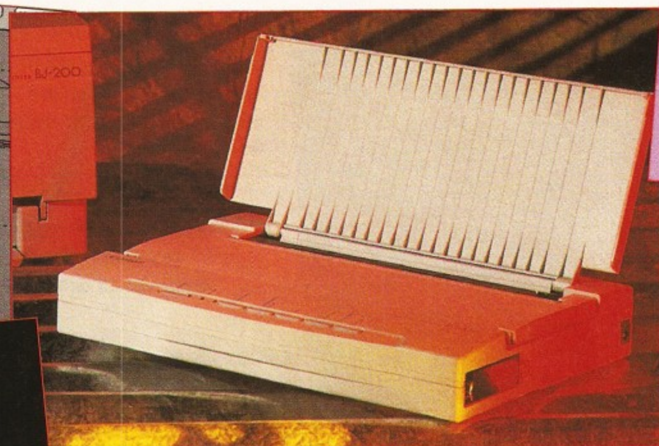
Left: Clear favourite in the CD-ROM category is Aminet 3.



Above: Anything by Eric Schwartz you said. So here's the rather lovely 'Sabrina the skunk'.



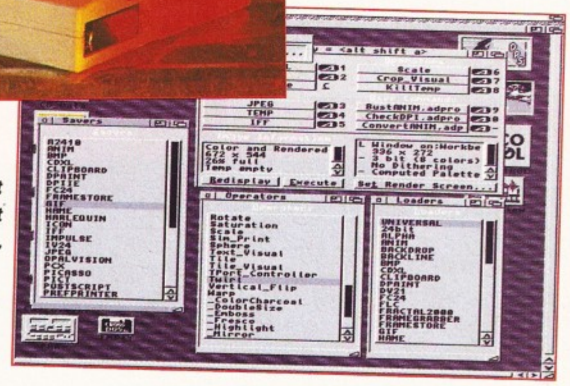
Below: The brilliant LightWave in action.



Above: As far as printers go, the Canon BJ10sx is tops.



Left: Check out our CD-ROM Supertest on page 22 for more about the Zappo drive.



Right: Art Department Professional is an excellent image processing package.

version on the Amiga Format Coverdisk worked in its favour.

Some products also made appearances in more than one category, with LightWave being nominated in four: 3D programs, animation programs, video software and business software. Although it only won in one category (by a convincing margin in the 3D programs section), it's obvious that NewTek's excellent 3D program has made an immense impact on the hearts and minds of Amiga users. We await the launch of version 4 of LightWave with anticipation.

The largest range of nominations was in the PD/shareware category, which only goes to show that the Amiga PD scene is going from strength to strength. The winner (Image Studio) is a relative newcomer, but such classic programs as SnoopDOS, DiskSalv and ReOrg also deserve an honourable mention, as well as a place on any serious Amiga users' hard disk. Another program deserving an honourable mention was Thomas Kreheibel's excellent image processing program Rend 24. Mind you, I would expect no less of one of the people responsible for the excellent commercial image processing and drawing program ImageFX.

Speaking of which, it's no surprise to see that Elastic Reality's rather nice image processing program Art Department Professional (AdPro) wins in the image processing category. Although the company is now concentrating much of its efforts to other platforms, such as Silicon Graphics and high-end PCs, it's reassuring to see that they haven't left the Amiga behind.

However, they certainly aren't alone. It was a close fought battle between AdPro and Nova Designs' ImageFX, with only a handful of votes between the two. Although AdPro has a head start of several years and many thousands of users, the people behind ImageFX have worked hard to catch up and in the minds of many they have not only caught up but have overtaken.

Third place in the image processing category goes to Photogenics, which is remarkably good progress for a program released only a few months ago. It seems likely that the image processing race will now have a third contender...

As far as video software goes, Scala was a clear winner. This excellent program polled nearly four times as many votes as its nearest competitor and is clearly still the choice of the Amiga video user. I'm not surprised, because Scala is a very useful program for any number of different purposes. The second prize in this category goes to Adorage, the excellent video titling program from ProDAD. This useful program allows you to do all sorts of wonderful things with your titles.

The competition in the word processing/desktop publishing category was much more fierce, with only a few votes separating the two main contenders: Wordworth and Final Writer. In the end, Wordworth was triumphant, but only by a small margin." ■



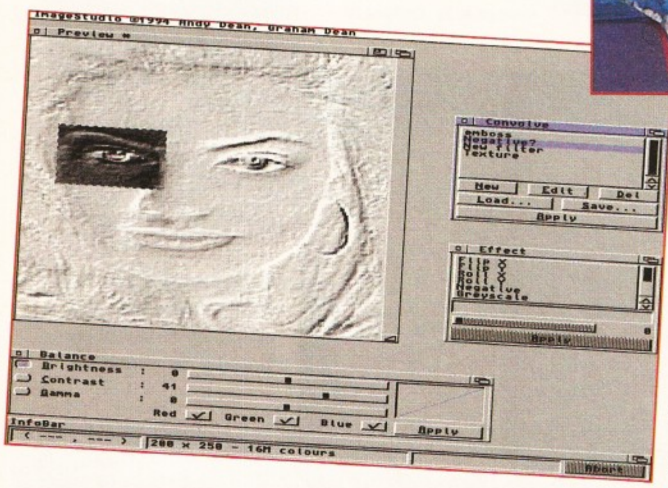
Above: Your first choice in the video hardware category is Pro Grab 24RT.

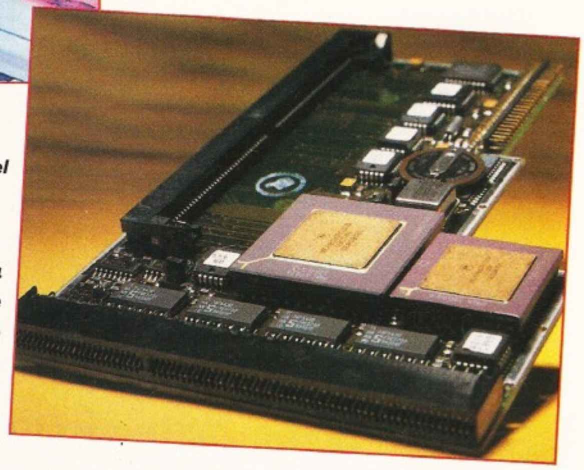


Above: DPaint which you voted as the best animation program to appear last year.



Above: US Robotics 288 sportster modem was the winner with the 14,400 model as a close second.





Right: Blizzard 1220/4 and 1230-II won the accelerators category.

Left: Image Studio is your favourite PD/shareware utility.

Amiga personality of the year

The category for the Amiga person of the year attracted a wide range of suggestions, but there was one clear winner – David Pleasance. With over double the votes of any other person, it's pretty obvious that he is highly regarded by readers of Amiga Shopper. In the difficult months since the demise of Commodore International he has been unswerving in his determination to continue the Amiga range. Although at the time of writing there was still no final conclusion to the saga of the Commodore sale, David Pleasance is still adamant that he will be the one to purchase the Amiga and continue the line.

Although most of those voting for David Pleasance were complimentary about him, some were slightly conditional about their vote. The forms included comments such as "If he keeps his promises", "for believing in the Amiga after the demise of Commodore" and "for turning the Amiga into a tug of love baby".



Strangely enough, we did not receive one vote for Alex Amor, the head of CEI, one of the rival bidders for Commodore. Although Alex Amor has some interesting plans for the Amiga should he win, he has stated several times that his primary market would be in the US. Are these facts connected?

David Pleasance wasn't the only person to make a showing, though. Many people voted for Ron Thornton, the head man at Foundation Imaging who are responsible for the stunning graphics on Babylon 5 and occasional Amiga Shopper cover artist. John Dreghorn of Aldershot voted for Ron for "showing people that the Amiga isn't just for games".

Keiran McGhee suggested Craig Collins, with the comment "what an advert for the Amiga – this man deserves a medal". High praise indeed. More praise was heaped on the shoulders of long-time AS writer Jeff Walker. Robert Williams of South Benfleet voted for him for his "excellent articles in AS and 50 issues of JAM (Just Amiga Monthly), along with a great service for readers."

Other people nominated include the late Jay Miner ("The king is dead! Long live the Amiga!" commented Spencer Jarvis of Carringham), Colin Proudfoot, Wolf Faust, Mark Smiddy, Graeme Sandiford (who is he?) and Amiga Shopper columnist and Foundation Imaging stalwart Mojo. J. McKenny of Bradford took a rather different viewpoint by nominating "anyone who did not run off and buy a PC, but stuck with the Amiga". Fair enough.



Amiga Shopper readers' personality of the year.

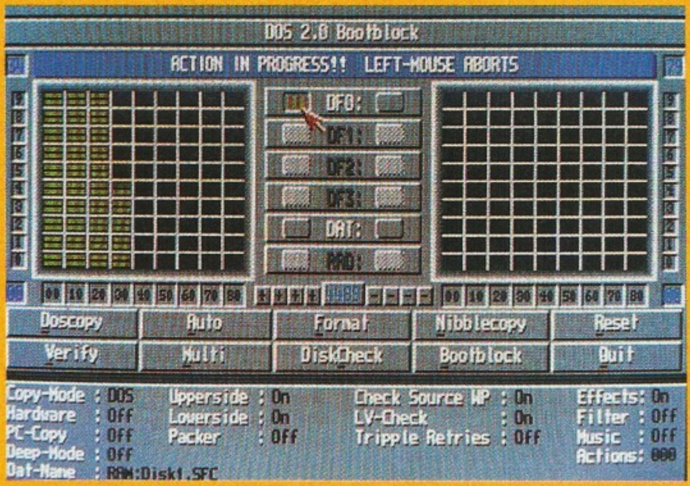
Nobody voted for the godlike genius that is Julian Cope, but one person did take leave of their senses and voted for me. Thanks mum!

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CD-ROM drives

Suddenly every Amiga owner wants a CD-ROM drive. With bargain interfaces like the HiSoft Squirrel about, it's now easier than ever to add a drive to any Amiga system. **John Kennedy** *gets all seedy.*

Commodore's own CD-ROM drive for the Amiga 1200 never quite materialised beyond some tantalizing photographs. The promised specifications – including memory expansion – looked good, but, unfortunately, fate made sure that they were not yet to be.

In the place of the official offering, third parties were keen to cash in on the interest in CD-ROM drives. The CD^{32} was proving a promising market for Amiga CD software, but it was the A1200 owners desperate to get their hands on games that prompted the release of devices such as the Zappo Overdrive. It's success has meant an explosion in CD-ROM software and not necessarily just entertainment either.

Compilations of Public Domain software are in constant demand: who can turn down the offer of 650Mb of software for only £20? Now more and more companies are publishing themed compilation disks: space facts, pictures, clip art, fonts, games... A CD-ROM drive is the easiest way to explore the vast reservoir of Amiga data that's out there.

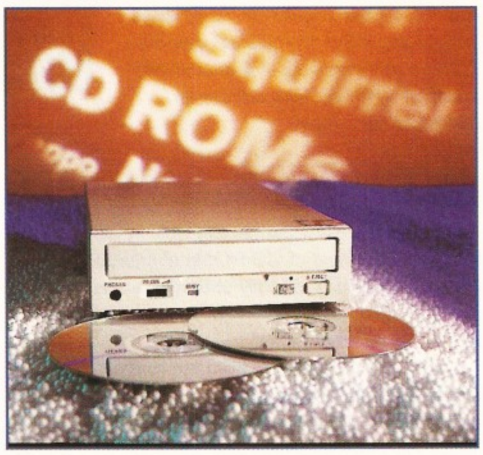
And the Zappo drive is no longer alone. Thanks to HiSoft and their Squirrel interface (see Amiga Shopper 48 April 1995 for a review) more and more drives are appearing on the market.

Choosing between the new drives can be a difficult task. However, as you'll see from this feature there are really only a small number of important features that you need to look out for. The choice for Amiga owners has never been wider and there has never been a better time to get spinning those disks.

Pick and choose

You might be encouraged to pick a particular CD-ROM drive by promises of MPEG movie software bundled with your drive. Unfortunately, this isn't a magic program which will enable to you watch Black Rain without splashing out for a CD^{32} and plug-in cartridge. The MPEG software is just that – software – and it's not going to revolutionise anything.

The CD^{32} cartridge contains a chip that's specially designed for MPEG decoding. The free software is usually in the form of a Public Domain utility based on the Berkely University code and is always a type-in-from-the-CLI affair. On an un-expanded A1200 the frame rates are truly slow (one frame per second is not uncommon) and it's only on a fast 68040-based system that the small screen display is watchable. We have yet to see a program which can decode the form of MPEG that includes sound, so at the moment the files you can use are limited to one or two animations involving tea pots and rides through the Grand Canyon.



The Power CD-ROM got our only Star buy award (though some drives came pretty close). Its low price played a great part in giving it the top score.



The CR-503 is a bare SCSI mechanism from First Computer Centre. It's ready for the drive bay of A2000s and A1500s fitted with SCSI interfaces.

On the other hand, the audio side of things is looking very good. All the CD-ROMs on test here have the standard twin phono plug audio output and a headphone socket with volume control. Just pop in a standard music disc and you have a high quality audio system at your disposal.

None of the drives tested had a method for playing music without resorting to software, but the several shareware/Public Domain utilities available (JukeBox for example) are extremely easy to use. Creating an automatic backing track for your animations is possible by controlling the CD player through ARexx.

On a slightly more advanced level, any units which use Toshiba and Sony mechanisms support CDDA – the playback of sound over SCSI. This facility quite incredibly relays the digital components of the recorded audio signal back to the Amiga in real time.

Your Amiga can then replay the sound through the standard sound hardware where it appears out of the back of the A1200 like any other Amiga sound (in 8-bit, although it still sounds pretty good). More usefully, the raw data can be sampled directly

> "The Zappo Overdrive's success has meant an **explosion** in CD-ROM software."

23 to disk in IFF form. Although something of a gimmick to most users – who after all can listen to the music through their headphones or normal audio outputs – musicians will absolutely love this feature. For example, we were able to use the Toshiba CD-ROM drive to sample a selection from an audio CD and dump it to a dedicated MIDI sampler: the sound was never converted into analogue form and so remained in pristine condition. Look out for programs called YACDP1.2 and cdda which will enable you to experiment in this way.

Another important program that you will require is a CD-ROM FileSystem. Amigas need a little help to find their way around the shiny discs and all those on test came with a suitable file system: AmiCDROM.

Install this program into your L: and DEVS: drawers (it's automatic) and your CD-ROMs appear on Workbench just like any other AmigaDOS disk drive. Owners of Workbench 3.1 should find that their systems work without an additional file system.



First Computer Centre's Prima features the same CR-503 mechanism as the bare drive, but in a self-contained box with power supply and audio outputs.

CD-ROM software

Apart from the many games available in CD^{32} format, the number of CD-ROMs of interest to Amiga owners has recently undergone something of a population explosion. The AmiNet series remain one of the all-time greats.

The software is taken from the Aminet site on the Internet on a regular basis and each disk contains a huge range of material, all filed away in useful directories and sub-directories and all compressed into LHA format. As a result, it only takes seconds with a tool such as DirectoryOpus to find and uncompress the files you need – it's the next best thing to a permanent high-speed link to the Internet.

Image rendering fanatics should keep a look out for the growing number of discs containing 3D objects, bump and texture maps, backgrounds and attributes. The Light ROM is one example that is always welcome in any CD-ROM drive when Imagine is loaded.

The Fred Fish series have passed into legend and are particularly useful for programmers since the complete example source code from the ROM Kernal Manuals is available on several discs.

As for the others, the list is growing every week. Keep checking out Amiga Shopper and our sister publication Amiga Format, for regular reviews and updates.

Cheap alternatives

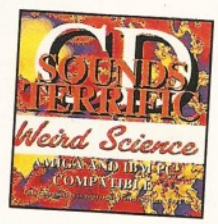
If you haven't a spare £200 but you still want to use CDs, there are a few alternatives. Remember the CDTV? It was Commodore's first attempt to marry the Amiga with CD-ROM and it featured the insides of an A500 Plus linked to a single-speed single-session caddy-style CD-ROM drive.



The combination was housed in a smart VCR-style box (complete with clock), but the steep asking price and bizarre marketing scheme didn't make it an overnight success story. However, there are still a few of them about and if you manage to find one it could be the cheapest way for you to get access to CD-ROM. All you need is a special parallel cable and a copy of Parnet.

When installed, the CD drive can be treated like any other device. It's not fast (the drive is slow to begin with and reading it through the parallel port is like waiting for Spectrum programs to load from tape) but it works.

The CDTV also makes a smart CD audio player and can be expanded with an external floppy drive and keyboard: which is handy for playing older games. However, memory expansion isn't possible, Workbench 1.3 is the only available Operating System and hard drives are rare: so don't pay over the odds for one.



In these enlightened days, of course, we have the CD^{32}, which is housed in a much cheaper box but is also much more affordable than the CDTV ever was. Although it has a decent double-speed drive, the CD^{32} suffers because there is no easy way to link it with another Amiga: there is no floppy disk interface and no parallel or serial connectors.

However, with some cunning, a CD-ROM with Workbench and Sernet (a serial version of Parnet) on it and a suitable cable to link the CD^{32} to another Amiga. Brian Fowler Computers (☎ 0392 499 755) can supply a complete kit for £34.99.

There is also a device called The Communicator which does much the same thing but with a few extra features providing more control

"The Fred Fish series have passed into **legend** and are particularly useful for programmers."

Jargon busting

Caddy – Early CD-ROM drives (such as the CDTV) required that the disk be placed in a special cartridge or "caddy" before use.
CDDA – Compact Disc Digital Audio. If a CD-ROM drive supports CDDA, it's possible to read the sound data from a music CD directly over the SCSI bus. It's like sampling with full quality.
PhotoCD – Kodak's system whereby photographs are scanned at development time and stored on a CD-ROM in several resolutions.
SCSI – Small Computer System Interface, an old but fast and reliable standard for connecting computers and peripherals together.
SCSI2 – A slightly improved, but downwardly compatible, version of SCSI.
SCSI-ID – Each device connected to a SCSI interface has a unique SCSI ID number from 0 to 7. The interface itself is always number 7, so up to six SCSI devices can be connected at any one time. Compare this to the IDE standard which only allows two drives (although Enhanced IDE has finally started to work around this problem).
Terminator – The SCSI chain must be terminated with resistors to avoid reflections and possible data loss. In a system with only one device, such as a CD-ROM drive, it's unlikely you'll have to worry about termination.
SCSI Unit – A SCSI device has an ID and a Unit number to address individual drives in a multiple system. The Unit number and SCSI ID are put together to create a single number which is used in Amiga DOS Drivers and mountlists.

A1200 tips

If your A1200 already has a SCSI interface (perhaps one is part of your memory expansion or accelerator) you don't need a Squirrel. In fact, you also have the advantage in that you are not using the PCMCIA port you can have more memory than most Squirrel owners.

Because of the way the PCMCIA port is mapped – and nothing to do with the Squirrel and HiSoft – there can be a problem if you fit more than 4Mb of memory to a trapdoor expansion card and use a PCMCIA card at the same time. To discover if your trapdoor expansion will cause problems with a PCMCIA device, open a Shell and enter: "showconfig". The report will inform you of where your memory is mapped in the Amiga's workspace. If it starts at $2000000, then there will be a problem if more than 4Mb is added (the PCMCIA interface lives at $600000 to $a000000).

If it starts at $1f00000 (such as with the Blizzard 50Mhz 68030 card), then there won't be any problems. It's worth asking about memory when you choose a trapdoor expansion to avoid problems like this later.

In any case, if you have a SCSI interface fitted you should be able to use any SCSI CD-ROM drive. Try buying the drive from HiSoft and asking nicely: you might get the Squirrel software which will emulate the CD³² and let you play games.

over the CD-ROM drive. The Communicator is available from Meridian Software Distribution (☎ 0181 543 3500) for £169.95.

Or you could get hold of the latest version of Communicator – Communicator III (£69.99), or Communicator Lite – which doesn't have MIDI support – (£49.99), from Amiga Format's Mail Order (AF70 page 131) by calling the Order Hotline on ☎ 01225 822511.

The other route is to expand the CD³² into a full Amiga and for this you'll need an SX-1 from INDI Direct ☎ 01543 419999 at £199.99 and an extra keyboard and floppy drive.

I haven't got an A1200

The Squirrel SCSI PCMCIA interface also works with the A600, so any of the systems reviewed for the A1200 will work fine. However, many programs require the addition of extra memory or a fast processor and CD³² games all require the AGA chipset. For this reason, we recommend that an A600 is used for retrieving programs from CD-ROM and not a CD³² substitute. Other Amiga's will work perfectly with CD-ROM drives, assuming that you have a suitable interface.

Any A500s still in use should probably have an external hard drive fitted by now. If this is the case there could well be an external SCSI connector available (such as on the back of the GVP H8+ series).

The CD-ROM drives sold by Power Computing and HiSoft for example, are suitable for directly connecting to this socket: all you need is a suitable cable and a freely available CDFileSystem software. Again, remember you won't be able to play CD³² games on an A500.

A3000 owners have a SCSI connector at the back of their machines so no problems there: just plug in and go. A2000 and A4000 owners will need a dedicated SCSI interface (or a Tandem card). It's possible to buy a SCSI interface on a Zorro card, although many accelerators feature them too as "optional extras".

When SCSI is present, a suitable CD-ROM drive can be fitted: it's only a matter of sorting out a file system and cabling.

Squirrel

HiSoft designed and built the PCMCIA SCSI2 interface which has prompted the sudden release of many different A1200 CD-ROM drives. However, HiSoft have also decided to house and badge some top-quality CD-ROM drives (and other SCSI equipment) and offer them as full solutions.

One example is the triple-speed Squirrel CD-ROM drive, which is built around the Toshiba XM-5201 mechanism. As Toshiba drives are amongst the best available (they don't make anything less than triple speeds) it was clear from the outset that the Squirrel drive would be one of the best performers.



The HiSoft mounting is large and incorporates the power supply inside the box. At the rear are the two SCSI connectors (one for connecting to the Squirrel interface, the other for connecting to any other SCSI devices), the audio outputs and a switch to select the SCSI ID number.

As with any of the Squirrel-based drives, installation is quite straightforward and involves running a script from the supplied floppy disk. The file system and the CD³² emulation system, is copied over automatically. All going well, any disc in the drive will appear on the Workbench and any games will allow the Amiga to be booted as if it was a CD³².

As well as being slightly faster than the other CD-ROM drives, the Squirrel drive also supports CDDA (Compact Disc Digital Audio), which means sampling audio from standard music CDs, is possible with software. The utility programs supplied contain suitable programs for experimenting with this facility.

If you think that a triple-speed drive is a waste of money, HiSoft can also provide a dual speed drive for £189 (this price doesn't include the Squirrel SCSI interface).

Squirrel

Price:	With Squirrel: Triple £299, Double £239 Without Squirrel: Triple £249, Dbl £189
Supplier:	HiSoft
Contact:	01525 718181

Verdict: 89%

Power CD-ROM

The Power CD-ROM for the A1200 is a lot smaller than the other drives on test because it takes the power supply out of the box and into a



The Squirrel CD-ROM drive from HiSoft is slightly faster than the other drives since it features the extremely rapid Toshiba triple-speed mechanism.

"The PCMCIA SCSI2 interface has prompted the **release** of many different A1200 CD-ROM drives."

27

NICE ONE SQUIRREL!

Squirrel SCSI
CD-ROM • TAPE DRIVE • MAGNETO OPTICAL • HARD DISK • SYQUEST • SCANNER • FLOPTICAL

Amiga Format 93% CU Amiga 94% Amiga Shopper 95% JAM *"The best piece of hardware I've ever bought for my A1200 ... well done, HiSoft!"*

As you can see, the Amiga press has gone nuts over our new Squirrel SCSI interface for the A600/A1200. In case you've missed these reviews, the Squirrel SCSI is a plug-and-play add-on that allows you to connect up to 7 SCSI peripherals to your Amiga. Just think of it, CD-ROM, Hard drive, Scanner, DAT, Optical, SyQuest, Tape Streamer - all on line at the same time! No wonder we named it after that famous storage-hungry animal! To go with Squirrel, here are some great value devices...

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SuperDouble - int £129, ext £189
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Not all CD-ROM drives are the same. Our SuperDouble and SuperTriple drives are fast, modern devices supporting all the SCSI features that you'll need, based on quality units from the world's leading manufacturers of CD-ROM, Sony & Toshiba.

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These are the drives we use for developing and testing the Squirrel hardware and software - need we say more?

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SCSI Hard Drives





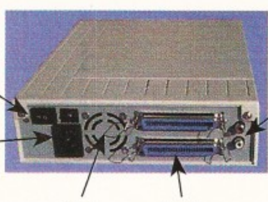
270Mb £169, 540Mb £239
730Mb £279, 1Gb £479
Add £60 for external units

Hard drives are becoming more and more affordable and we can now offer some tremendous prices on a range of superb quality, Quantum drives in a range of capacities.

These drives offer fast seek times (14ms @ 270Mb, 11ms @ 540/730Mb, 9ms @ 1Gb), large caches and high speed data transfer rates (1.5Mb/sec with Squirrel). All units can be supplied for you to fit in your own case or pre-installed in one of our professional Squirrel Storage Cases. The Squirrel does not auto-boot external hard disks but you can do this from floppy or from internal IDE hard disk.

We can supply all leads, terminators etc. Please feel free to discuss your exact requirements with our friendly, technical staff.

Squirrel Storage Systems



All our Squirrel Storage Systems come either bare (*int* - ready for installation internally within a suitably-equipped Amiga or other computer) or fully-cased (*ext*) with integral power supply, SCSI in/out, SCSI ID selector and audio out (for CD-ROM). The cases we supply are high quality, shielded, snap-together enclosures, each with 40W power supply - the back panelof the 5.25" case is shown above. These SCSI enclosures are available at **£69.95** each (please specify 3.5" or 5.25" when ordering).

The neat Squirrel SCSI interface is shown on the right. The unit simply plugs into the PCMCIA slot, comes complete with all the software you need together with a cable which terminates in a 50-way Amphenol plug to attach to your first SCSI device.



the Squirrel SCSI interface

Twist 2

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96% Amiga Shopper 90% AUI

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Ordering Information

All HiSoft products (see the complete list below) should be available through your favourite Amiga dealer. If you have difficulty in obtaining any title you can order directly from HiSoft - just call us free on **0500 223660**, armed with your credit or debit card; we will normally despatch within 4 working days or, for an extra £6, by guaranteed next day delivery (for goods in stock). Alternatively, you can send us a cheque or postal orders. All prices include VAT. Export orders: call or fax to confirm pricing and postage costs. © 1995 HiSoft. E&OE.

HiSoft products for your Amiga: Squirrel SCSI interface - £69.95, Squirrel Storage Systems - as above, Aura 12/16 bit sampler - £99.95, Megalosound 8 bit sampler - £34.95, ProMidi interface - £24.95, HiSoft Devpac 3.14 - £79.95, HiSoft BASIC 2 - £79.95, HighSpeed Pascal - £99.95, Gamesmith - £99.95, Termite - £39.95, Twist 2 database - £99.95, Maxon Magic - £29.95, Upper Disk Tools - £14.95, VistaLite inc MakePath/TerraForm - £39.95 and much more. **Coming soon: DiskMagic** (disk tools) **and Cinema4D.**



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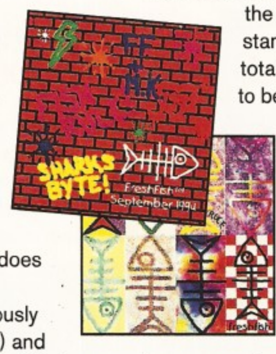
25▶ mains transformer: this makes no difference to anything other than desk space. At the back there are the usual twin centronics-style connectors (but no locking clips for some reason), the power supply input and two sets of audio connectors.



This was the only drive to include a pair of audio input jacks and it does so to provide an easy way of mixing the standard Amiga sound with CD audio. This is a great advantage if you like games, as the other drives require some kind of external mixer before they can mix the audio.

There is no way of setting the SCSI ID number which is something of a change. However, it's not hard to see why: Power Computing want this drive to be as idiot-proof as possible. And with no way to mess around with the settings there is virtually no way of installing the driver software incorrectly. Besides, any other SCSI hardware will be able to have ID settings altered.

The drive mechanism is a double-speed, tray-loading system which turns in normal performance figures. There is a QuadSpeed version available for an extra £100 and we suspect that this would use the high-quality Toshiba mechanism. There is currently little advantage in getting a drive faster than double-speed unless you really need the speed or just want to pose: although the Toshiba drive does support CDDA.



The PCMCIA interface looks suspiciously like a good old Squirrel (although in black) and the manual and software quickly betray the HiSoft origins. The Squirrel is an excellent SCSI2 interface and there is no shame in using it. CD[32] emulation is through the HiSoft library and works very well.

Supplied with the unit are a few floppy disks of utilities, including Amiga file systems, hard disk utilities, audio players and an MPEG program and PhotoCD conversion utility. These are slightly techy utilities and a drive aimed at the beginner like this could have included some more printed documentation on them.

The Power drive is excellent value for money and is ideally suited for the first-time dabbler or games player. The size is less intimidating than other units and the audio mixing should be standard on other drives. Plus, the fact that the Squirrel interface itself retails at £70 means you are getting a bargain.

Power CD-ROM

Price:	£199.95
Supplier:	Power Computing
Contact:	01234 273000

Verdict: 90% — Star buy

Prima

The Prima CD-ROM drive from First Computer Centre is like the Squirrel CD-ROM in appearance, in that it's a standard SCSI containment box with a built-in power supply: although it's marginally smaller and slightly better built. Like the Squirrel drive, it weighs a ton.The external connections are also the same, with twin SCSI connectors, a stereo audio output and a little clocking switch for setting the ID number. The default is "3" and the Squirrel SCSI software had no problem with detecting it.

Inside the Prima is a double-speed Panasonic mechanism which works as well as any other good double-speed mechanism. All drives these days have headphone sockets, volume controls and the eject button just where you can't reach it when you need to insert the tray (so you end up pushing the tray itself whilst wondering if that will break it).

The software includes a superb collection of Public Domain stuff on a bright yellow CD-ROM. This disc is one of the best I've seen and is an excellent introduction to CD software. It's got general and CD-ROM utilities, hundreds of pictures, fonts, animations, games, emulators... if First Computer Centre sell it by itself it's worth getting.

The drive was also supplied in "bare" form for testing with an Amiga 4000 and a third-party SCSI interface. The only problems with fitting the drive were caused by Commodore's decision on making the 5 1/4-inch drive bay slightly non-standard and the drive refused to fit totally snuggly into place. If this is likely to be a problem, you could always rehouse the Amiga in a Z7 Tower case.

Using a Warp Engine interface with the Panasonic caused no problems, although the standard AmiCD-ROM file system didn't seem to like the Warp Engine's memory. Switching to another freely available system stopped any crashes and the drive has become such an integral way of working with the Amiga that it would be impossible to be without it.

Performance with the A4000 was the same as with the A1200, so clearly any transfer speed bottle -neck is with the drive mechanism, rather than with any particular SCSI interface.

The Prima is a good drive for A1200 owners, helped by the excellent disk of software.

Prima

Price:	Double £219.99, Triple £245.99, Quad £345.99
Supplier:	First Computer Centre
Contact:	0113 2319444

Verdict: 89%

Nakamichi MBR7

This drive is definitely odd. First of all, Nakamichi aren't well known for budget CD-ROM drives. In fact, they don't make any and concentrate on the high-end market instead. However, this model happens to be rather affordable and yet has some remarkable features.

The casing is larger than all the other drives for the simple reason that inside the box is space for seven CD-ROMS. This is a jukebox system and if you need about 4 1/2Gb of on-line storage, then this is the drive for you. It's supplied by Amiga CD-ROM gods Almathera (☎ 0181 687 0040) and as it behaves like an ordinary SCSI2 mechanism, it will work with any suitably interfaced Amiga. Switch it on and when you press one of the numbered eject buttons an empty tray pops out. Place a disc on it, close the tray, press another button and another empty tray comes out. It's a great parlour trick and up to seven disks are stored internally like this.



Unfortunately, the Mitsumi drive arrived at the last minute, so we didn't have a chance to test it fully.

"The Power drive is excellent value for money and is **ideally** suited for the first-time dabbler."

▶29

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27 Before you panic and start wondering where all the SCSI ID codes are going, don't worry: this drive still only uses one single SCSI ID. Yup, it's crazy, but you could connect up to six of these mothers on to your system at any one time. The secret is in the SCSI Unit number. Every device on the SCSI chain has an ID number, but every device also was a Unit number from 0 to 6. The unit number is specifically designed to take advantage of multiple systems like the Nakamichi and only requires you to make slight adjustments to your DosDriver settings (all is explained in the on-disk documentation).



Care is needed because if you have all seven trays in use when you boot, it can take a long time for all devices to be mounted. And performing an AmigaDOS directory over all discs can take a very long time indeed... The disk icons appear on Workbench like multiple drives, but when you click on a disc icon that isn't currently being used there is a delay as the disks are swapped around. Obviously, this takes time (a few seconds at the most), but you probably couldn't swap discs by hand in the same amount of time.

Obviously, though, the Nakamichi wasn't designed for lazy people. It's designed for file server systems, such as Bulletin Boards. Any SysOp (System Operator) would love one of these devices handing off their board, because they offer their users up to seven CD-ROMs on-line at once.

The Nakamichi's performance is slightly lower than a standard double-speed CD-ROM drive, but no-one in their right mind is going to buy this drive as their sole CD-ROM system.

The specifications claimed CDDA compatibility, we couldn't get it to play, but Amiga Format confirmed this running an A4091 interface. The Nakamichi MBR7 is not a drive for a beginner, but it is an extremely useful piece of kit for those who need on-line data and lots of it.

Nakamichi MBR7

Price: £345.00
Supplier: Almathera
Contact: 0181 687 0040

Verdict: 80%

Zappo

The Zappo was the first Amiga A1200 CD-ROM drive available and it's been extremely popular. It's based on a special PCMCIA interface which provides all the electronics to convince the Amiga to talk to a double-speed Mitsumi mechanism.

Like the Power CD-ROM drive, the Zappo is small and an external PSU keeps the transform out of the drive casing. The connection at the back is a 25-way connector and it leads to the PCMCIA connector on the side of the A1200. Remember through, this isn't a SCSI device so there is no pass through for using other hard drives or peripherals.

Because it has been around for a while, the CD^{32} emulation is getting better all the time. The driver software is upgraded regularly (for a list of compatable games, check out Amiga Format 69, March 1995).

Zappo

Price: £225.99 (pack with software and CD^{32} joypad)
Supplier: INDI Direct
Contact: 01543 419999

Verdict: 80%

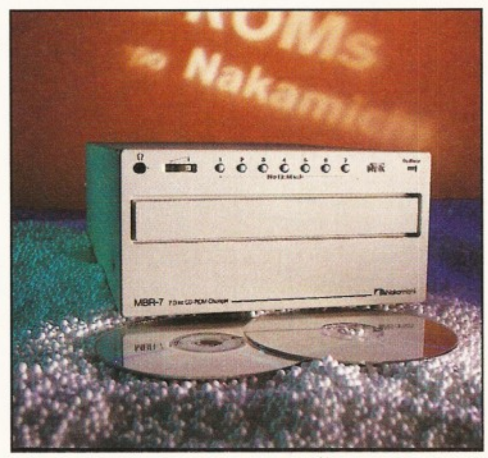
Tandem

The Tandem controller is a Zorro II card for A2000, A3000 or A4000 owners. It's very small, but it provides an IDE interface and an interface for Mitsumi CD-ROM drives.

The Mitsumi drives use a propriety interface and the single and double-speed mechanisms can be picked up very cheaply indeed if you shop around. Gasteiner (☎ 0181 365 1151) supplied us with a new triple-speed Mitsumi drive. Unfortunately, the Tandem interface and Mitsumi drive arrived at the very last moment and we didn't have time to test them thoroughly. The Tandem card has been improved to work with the new triple- and quad-speed non-SCSI Mitsumi drives and so should offer a convincing turn of speed, albeit with a non-standard interface. (Full review soon.)

If you have an Amiga 2000 the Tandem has the distinct advantage of providing an easy route to adding IDE hard drives: the price of these drives (as used in the A4000 and IBM-PC) has recently plummeted and make a very good case for sticking to IDE rather than SCSI.

On the minus side is the unproven CD^{32} compatibility (not that A4000 owners will be 31



Almathera's Nakamichi MBR7 CD-ROM drive holds seven CDs at a time!

Smile, please!

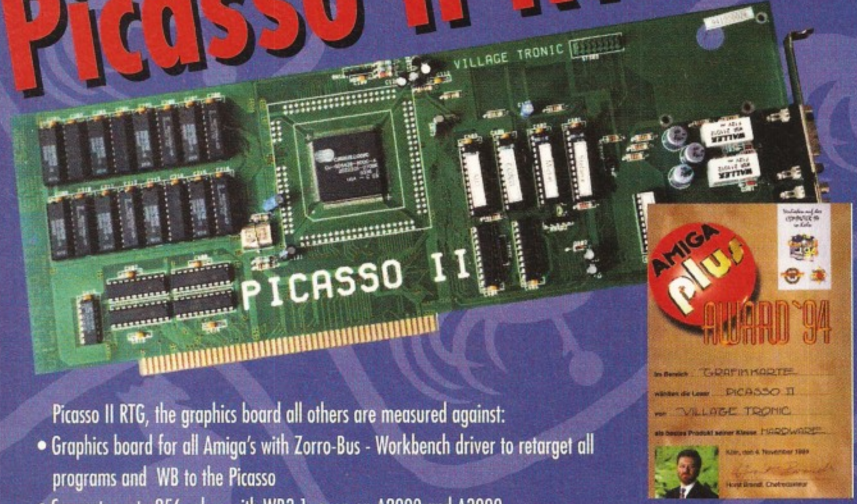
Kodak had a marvellous idea: let's put images directly on to CD-ROM and then flog a black box so that everyone can view them. Oddly, this didn't really catch on at the time, as it turned out that no-one really wants to stare at a TV image when they can hold some photographs in their hands and show them around.

However, a lot of computer users do want a high-quality scanning service: and that's exactly what PhotoCD is. Take your undeveloped film to the chemist in the normal way, say the magic words ("PhotoCD, please") and wait for a week. If you haven't done it before you'll need a fresh disc to start with, but subsequent journeys can tack more images on to the end. This requires a drive which is "multi-session" compatible, but you would be unlucky to find a drive which wasn't.

The files are held on the disc in five different resolutions, the most useful of which are 256x394 and 512x768. All files are in the equivalent of 24-bit colour.

With a utility program such as the freely available PCD to IFF you can create a standard IFF image which can then be loaded into your favourite art package. The quality is staggering: you would need a very good thousand pound canner to come close and the convenience of having the images permanently stored on disc (instead of taking up precious hard drive space) is worth the price.

Picasso II RTG







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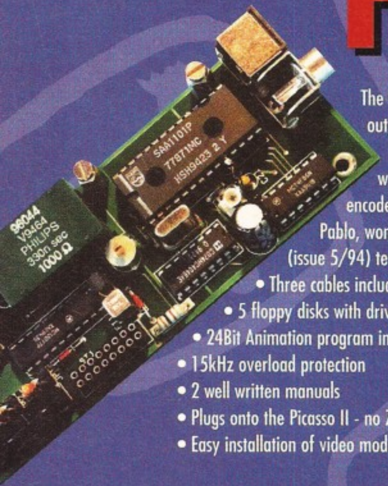
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Pablo



The video module, Pablo, expands your Picasso II with two new video outputs. Using the Pablo, you can view your Picasso output on any TV or VCR. All with quality that you would only expect to see from broadcast video encoders. That is why the Picasso II video encoder module, Pablo, won in the (German) magazine 'Amiga Magazin' (issue 5/94) test for video encoders.

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Test details

We used several specially-written programs to test the performance of each CD-ROM mechanism. You should be aware that the performance you'll see depends on your Amiga hardware and the specific applications being used. However, the tests are still useful for comparative purposes.

The A1200 tests were run on an A1200 with 4Mb of extra memory and A4000 test on an A4000 with 28Mhz 040 Warp Engine.

Test 1 Open 1,000 files at random – a test of the seek times of the drive mechanism. Times in minutes and seconds.

Test 2 Read in several megabytes from the CD-Drive. Hopefully, a test of the real-world speed of data transfer. Times in minutes and seconds.

Test 3 The results from SysInfo's speed tests in Kbytes/second.

Results

A1200 drives	Power	Squirrel	Prima	Nakamichi	Zappo
Price	£199	£320	£260	£345	£199
	(quad £299)	(£190 bare)	(£133 bare)		
Drive Speed	x2	x3	x2	x2	x2
SupportsCDDA	N	Y	N	N	N
PhotoCD Compatible	Y	Y	Y	Y	Y
Supplied Interface	PCMCIA	PCMCIA	PCMCIA	None	PCMCIA
Interface Standard	SCSI2	SCSI2	SCSI2	SCSI2	Own Set
SCSI ID	N	Y	Y	Y	N/A
SCSI Passthrough	Y	Y	Y	Y	N /A
CD³² Emulation Supplied	Y	Y	Y	N	Y
Audio Connections	In/Out	Out	Out	Out	In/Out
Headphone Socket	Y	Y	Y	Y	Y
Tray	Y	Y	Y	Y	Y
Test 1	2:11	1:20	2:08	2:41	N/A
Test 2	2:50	2:48	2:48	2:49	N/A
Test 3	307	508	308	300	N/A

29 ▶ worried much by that) the single-session-only facility and the fact that a SCSI Zorro card doesn't cost much more that the Tandem.

It's a tricky decision to have to make and it depends largely on whether or not you will be expanding your set-up in the future and would need the added flexibility which SCSI (with up to six devices chained together) provides.

Super Squirrel

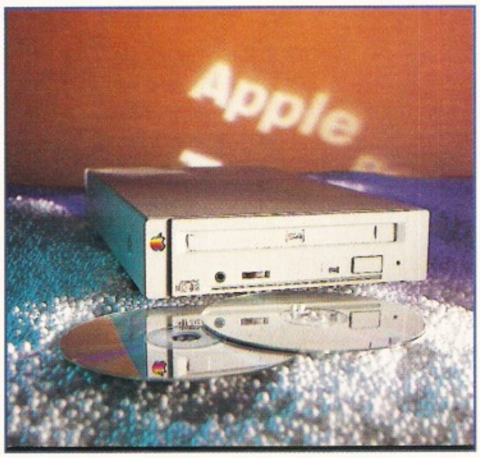
With the advent of the Squirrel PCMCIA interface, the great news is that practically any CD-ROM drive can be used with an A1200. If none of the devices reviewed in this Supertest take your fancy, you can browse through some IBM-PC or Apple Mac magazines until you find the one that's right for you.

You get to choose the exact speed and specifications you need, safe in the knowledge that if it says "SCSI" on the box, you can use it. A perfect example is the Apple CD-ROM drive. It's actually a badged Sony, but comes ready-cased in an attractive box with a power supply. Available in single-speed and double-speed versions, the Apple drives are perfect companions for the Squirrel (if you can live with the thought of an Apple logo so close to your Amiga).

They also support CDDA and are worth keeping a look out for, especially the single-speed model which has ceased production and is available for well under £100 now. Remember though that you will need some way of powering and encasing the bare drives you may see advertised. You cannot power the drives from the A1200's power supply: there simply won't be enough juice.

Housing your bare drive can be an expensive business. You could shop around for empty SCSI casings, or go the way of a growing number of Amiga users and buy a cheap PC MIDI Tower case. These cases are relatively inexpensive and come with a beefy PSU and enough space for three or four SCSI devices.

The easiest approach is to keep the A1200 intact and only place your peripherals in the new case. HiQ's PowerStation cases use this approach (☎ 0181 909 2092). Remember you'll also need cables to convert the Squirrel's centronics-style connector to the 50-way IDC connector used by the bare drives. ■



The Apple CD-ROM drive is the perfect companion for any Amiga fitted with a SCSI interface. The drive uses an older Sony single- or double-speed mechanism, but is compatible with digital audio.

Not all drives are created equal...

Some of the cheaper mechanisms, such as those made by Sanyo, aren't quite as SCSI friendly as those from Toshiba or Sony. The result can be an extra few seconds' delay on boot-up, which can be off-putting if you intend to use the drive for playing a lot of games.



Straight talk

R. Shamms Mortier *talks to Ben Williams– a Tae Kwon Do black belt instructor and the man at the helm of Black Belt Systems, Inc.*



Ben Williams felt that the martial arts embodied much that would be good in a company – balance, speed, flexibility, determination, work ethic and drive for excellence, hence the name Black Belt Systems.



Image processing done in ADPro and processed through Batch Factory.

Ben Williams is one of the original masters on the Amiga platform and deserves to be listened to by all involved with the Amiga.

When did Black Belt Systems begin?
Black Belt Systems began as SoftCircuits, Inc. in Autumn 1985 in Florida. We exhibited the first shipping CAD system for the Amiga at the Spring Comdex in Atlanta in 1986 – it was called PCLO (Printed Circuit Lay Out). SoftCircuits then developed communications and additional CAD software for the electronic engineering market, and performed contract operations for other Amiga developers.

In 1989, the company moved to Montana. Its goals were changed from engineering-oriented products and developer service to image manipulation products for the general Amiga consumer – it was apparent that the Amiga's niche was going to be graphics and video. As for where the name came from, I am a black belt-ranked instructor in the Korean martial art of Tae Kwon Do. The martial arts embody much that would be good in a company: balance, speed, flexibility, determination, work ethic and drive for excellence.

How did Imagemaster come into being?
Imagemaster RT started life as part of the support software for our HAM-E graphics device for the Amiga. It was originally called Image Professional. The HAM-E introduced the concept of 8-bit hold-and-modify graphics encoding; because this was a completely new display mode, we needed to provide support software. Other support software included a paint system, file conversion utilities and developer support libraries.

What are the strongest features of Imagemaster versus its competition?
There are only two competing programs – ASDG's (now Elastic Reality) Art Department Professional and Nova Design's ImageFX. Imagemaster has concentrated in bringing a broad set of capabilities together in one program. Art Department has been a strong competitor by virtue of effective marketing by ASDG, rather than performance.

ImageFX, however, is a highly credible and very powerful application for general image manipulation and it rivals Imagemaster's power and flexibility. But there are enough points of difference between Imagemaster and ImageFX to keep them both viable in the tiny Amiga marketplace.

Imagemaster's strongest features are its wide range of capabilities and the high quality of its output rendering (for instance, converting 24-bit images down to low colour, such as 16-colour, for display on ECS Amigas). Imagemaster's morphing capabilities land squarely between ImageFX and Morph Plus; far more powerful than the Cinemorph module supplied with ImageFX and lacking the layering tools available in Morph Plus, though superior in most other aspects such as user interface and surface control.

ImageFX has about half the effects and tools of Imagemaster, while AD Pro has less than 10 per cent of the effects and tools. And Imagemaster's price – under $100 (around £62) – and performance also help it stand out from the other two – it offers the most supported file formats and the most effects.

Where do you see it heading in the future?
As long as the Amiga market remains even marginally viable, we will continue to follow this course. Thanks to the success of Windows, Black Belt Systems is strong and actively developing. So, it is easy to keep an Amiga programmer and technical support person on staff; it is our intent that the Amiga product remains active as long as possible. The Amiga community made this company and now is our chance to return that support.

Can you give us some background on the development of HAM-E?
It was conceived as a means to provide an Amiga with better colour resolution. Maximum colour resolution on an ECS Amiga was 4,096 (HAM) colours from a 12-bit (4,096-colour) palette in 320 horizontal resolution or 32 register colours from a 12-bit palette (4,096 colours, 16 grey levels) in 320 horizontal resolution. The HAM-E increased these values to 262,000 (HAM) colours from a palette of 16,000,000 colours, or 256 register colours from a 24-bit palette (16,000,000 colours, 256

grey levels). It worked with all Amiga models and was relatively cheap – about $200 (£125).

Jay Miner thought the HAM-E design was brilliant. A couple of years later, Commodore introduced 8-bit HAM with the AGA chip set. The HAM-E was removed from our product line when the DCTV device marketing hit the market – DCTV was advertised for months before it was available and the sales of the HAM-E unit reduced to a trickle while consumers waited to see the DCTV unit.

We couldn't afford to continue the product under those conditions. DCTV turned out to produce images with less quality than those the HAM-E could produce and didn't offer the same level of system compatibility (i.e., you couldn't mix DCTV and normal Amiga screens like you could HAM-E and Amiga screens, DCTV wasn't PAL compatible – DCTV offered no RGB output capability until years later) although this was offset by the high quality digitiser and paint software supplied with DCTV. Once DCTV was released, we saw a huge increase in interest in the HAM-E, but we no longer had the hardware manufacturing facilities, so the product remained unavailable.

What was the HAM-E dispute all about?
This was truly a tempest in a teapot. The HAM-E, unlike most Amiga add-ons, was designed to comply with the Federal Communications Commission standards, the agency in the USA who ensure that unacceptable amounts of radio frequency interference are not generated by commercially available devices.

Before the HAM-E was on sale, Black Belt Systems subjected it to the full spectrum of testing at a high quality, FCC-certified lab. All tests were passed. An ID number was applied for and received from the FCC. However, the cheque and photographs needed to complete the FCC process were misplaced and the FCC approval process did not complete. After we took the HAM-E off the market, we received a letter from the FCC stating that we had to stop marketing it until we had official approval.

We replied that the device was no longer on the market and that was the end of the HAM-E dispute. However, lots of nonsense was produced on computer networks and in magazines. We were hammered repeatedly as if we had tried to put something over on the Amiga community. That was never the case.

How do you think that the HAM-E device and operations pre-configured the development of the AGA system?
The HAM-E design preceded, by years, any mention to developers by Commodore of any plans for 8-bit HAM. We put the design out on the networks, publicly, to describe what it was we were intending to do, so that people would know that it was viable. When we had a prototype running, we went to Commodore in West Chester to show them the device... this was all still pre-AGA.

During AGA development, Commodore worked with ASDG to develop HAM-8 support. We were never contacted with regard to the AGA development or support for AGA. When the AGA chipset became available, we had support in place for it within 24 hours –

> "The Amiga community made this company and now is our **chance** to return the support."

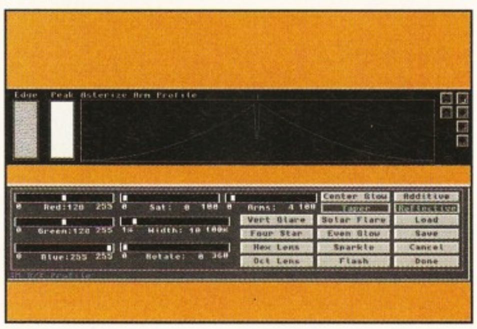
because the design resembled ours closely and no changes had to be made to our core code. This is amazing, given the hundreds of different ways one could design an 8-bit HAM system, but we accepted it with good grace, all things considered. Perhaps it was all a coincidence. We like to think so.

In any case, the HAM-E was AGA HAM-8, for all intents and purposes. The AGA chipset brought many other advantages, such as higher spatial resolution and new sweep rates and we welcomed it as a new era in Amiga display capabilities. AGA support was central to Imagemaster from the day AGA machines became available.

What was Black Belt Systems' relationship with Commodore?
We would call them a few times a year and clarify a development issue, or report an OS problem. End of relationship. We have nothing but respect and admiration for the Commodore technical support people; they have always been helpful and knowledgeable.

Commodore, beyond CATS, was a chaotic and misguided enterprise – they were the worst possible owner of the Amiga technology. Someone once remarked to me on-line that if Commodore had owned the Kentucky Fried Chicken franchise, they would have marketed it as "lukewarm, greasy, dead bird". That about sums up Commodore from my perspective.

How do you feel about the rebirth of the Amiga? Is it possible?
We would be overjoyed if the Amiga was reborn. It would take a huge amount of money, good marketing and a transition to solid compatibility with the mainstream market.



The main Batch Factory interface screen, making batch processing very easy indeed.

When a company takes over the Amiga, what advice would you give them about where they should take the technology?
The A1200 and A4000 need faster processors. They both need to be cheaper and the use of surface mount technology for components at risk (such as the parallel chips) must be eliminated to ensure that the consumer has a serviceable machine. Every effort should be made to work with companies like Scala, who have developed niches that can sell Amigas.

The Amiga desperately needs support libraries from the manufacturer, that make using the potential of the HAM-8 modes easy enough so they live up to their promise. Many developers are not graphics wizards and will not deal with the complexities of HAM-8 coding directly. Libraries can solve this permanently so that full colour display would be the rule, instead of the exception.

All of this can be done without any new hardware designs and can further be accomplished by developers outside the new company under contract. For instance, we would be the logical choice for the above library, as we have more HAM-8 experience than anyone, including the old Commodore.

The 68060 is the best short-term CPU upgrade. Pentium or 586-compatible CPU should be standard. Windows drivers should be provided that allow 256-colour windows operation on an Amiga 256-colour display. Complete Super VGA compatibility must be added to the graphics hardware. Every Amiga should have broad-based bridge technology to the PC hardware environment; 68060 CPUs standard for the Amiga side, with development towards a RISC-based system a must.

What's your future as an Amiga developer?
A strong, marketing-oriented company would push a 68060 Amiga with 24-bit graphics, Super VGA mode, 586/Pentium, Ethernet, fast parallel ports, a compatible TFT LCD laptop machine and bulletproof Windows compatibility. We see Mac compatibility remaining third party. We feel that the Mac is due to crash as hard as the Amiga has and we want no part of that. Developer support for the machine would become open, free to anyone, unless you call for answers. All developer documentation should be available on-line, preferably on the Internet.

Solid printer support would replace the current low-quality system. All systems would ship with hard drives and at least 8Mb of memory. Unbreakable inter-task protection would be implemented. Virtual memory should be standard. All systems would have MMUs and FPUs standard and would come with software to access the Internet news and mail, like the Chameleon product for PCs or the built-in capability in OS/2 Warp. All system user documentation would be on-line – printed manuals should be a thing of the past. ■

Black Belt Systems can be contacted at: 398 Johnson Road, Glasgow, MT 59230, USA. ☎ 0101 (800) 852-6442

Databases

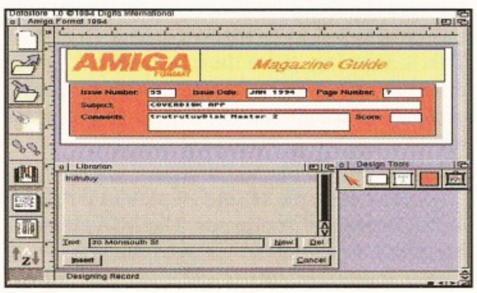
Databases are not generally thought of being particularly exciting, but **Graeme Sandiford** *has found three new packages that might just change a few peoples minds. However, which is the best one for you?*

Have you got boxes full of paper, files and disks? Do you know that that vital bit of information is in there somewhere, but the question is where? You are in deperate need of a database. Read on and find out what it could do for you.

The human brain has an amazing capacity for storing information. That grey pulpy mass between your ears can store more information than you could possibly cram into it over several life-times. There isn't a computer system on the face of the planet that can match its ratio of storage space to physical size. Okay – so it's not particularly attractive, but it's rarely seen.

So, why do we need computers at all? Well, the trouble is recall – fitting it all in is no problem, it's just getting it out. That's why we need computers and why almost everybody can benefit from having a database. Whether it's to keep a record of your favourite Mexican recipes, or keeping up with your growing CD collection, there are many advantages to storing your information electronically.

However, databases are not the simple beasts they once were. There's a new generation of databases that are loaded with powerful features that are intended to help you get more out of your data. The down-side to this new world of database choice is that finding the right one for your needs has become exceedingly difficult. To help you make the correct decision, we'll put three brand-new databases through their paces – Datastore, Final Data and Twist 2.



Datastore's Librarian can be used to store frequently-used lines of text.

Introductions

Although all three of these products are databases, they are by no means the same. They each take distinctly different approaches to handling your information and, therefore, have contrasting interfaces. Entering data into a database for the first time can be time-consuming under the best of conditions, which is why a database's interface is extremely important.

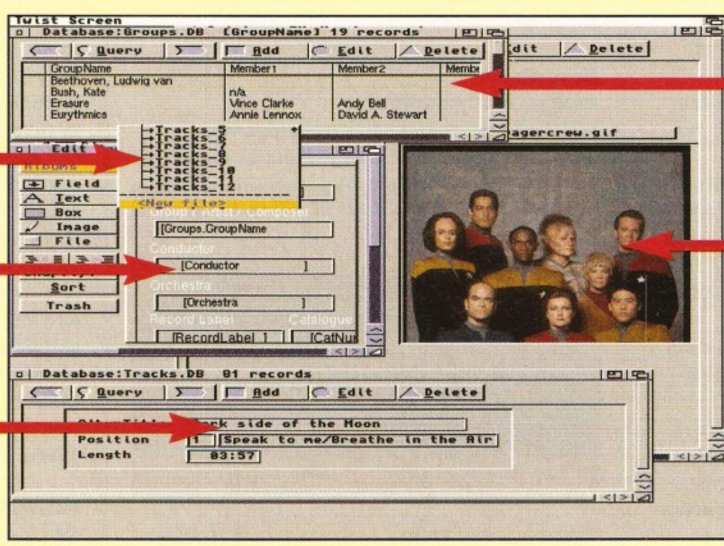
Final Data's interface is interesting. More than anything else, it closely resembles a spreadsheet. Indeed, it works in a very spreadsheet-like manner as well – you enter your information on a rows and columns basis. This is not the most welcoming or feature-laden of interfaces, but it is extremely simple and quite effective.

In stark contrast with Final Data's spartan approach, Datastore's interface is bright and cheerful with plenty of large icons thrown in for good measure. In fact, if you have used Wordworth before, you'll be pleasantly surprised because Digita have worked hard to make the interfaces as similar as possible.

Unlike Final Data, you don't have to stick to a rigid structure for creating your fields. You can draw them on screen as you would a box in an art package. Captions, boxes and pictures can be added in the same manner. There are two modes of operation: the edit record mode for entering and searching for data; and the design mode for designing your databases.

In many ways Twist's interface is not too

Twist



Creating a relational link is simply a matter of pointing and clicking on the fields you wish to link.

Editing your database's form is easy – just drag the field type you want to add to the position you want it in.

This is Twist's record view mode. Unlike the list mode, only one record is shown at a time.

This is Twist' list mode view. The records are displayed in list form with each column relating to a different field.

This image from the new Star Trek TV series is a GIF file that is being viewed as a DataType.

different from Datastore's. It also takes a graphical approach – being able to draw fields directly on to a record. It has several modes of operation too. There are two modes for viewing your databases: list mode – where each record in a database is listed; and record mode – which displays one entry at a time. You also have two editing modes, edit field – for editing fields, and edit form – for editing the database's form and creating a relational link.

Creating a database

I'll start with Final Data again because it's nice and simple. When you instruct the program to create a new database, it will ask you to define its columns. These can be one of five types: text, amount, calc, date, or time. After you have done this, you'll be presented with a blank grid – to make an entry, you just click the New button on the side of the screen. As its interface is basically a spreadsheet, you simply select a cell and type in the a text string, or mathematical expression.

Creating a database in Datastore is a completely different process, which is to be expected given their contrasting interfaces. You start off with a blank page and add the elements you want to be included in the database's form by using the program's design tools. There are five of these tools: the arrow pointer – for moving objects, the field tool, the caption tool, the box tool and the picture frame tool, which can be used to add pictures to your database. There are also several layout options to help you with the positioning of fields and other objects. The program also comes with several templates, which are basically example databases that can be adapted to suit your needs.

Creating a database in Twist is another type of affair again. When you ask the program to create a new database, you'll be presented with a requester for you to input the names of the fields you initially want to be created. Once you've done that, you can edit the layout in a similar fashion to Datastore – using a selection of tools to draw fields and other items on screen.

To help you to create nice and tidy forms, the program has a useful snap-to-grid tool and align function which will align and/or re-size selected objects. The object types available from the forms editor include: fields, text, images and files. The images tool performs the same tasks as Datastore's picture frame tool – it adds an IFF picture. The files tool can be used to add files which Twist will attempt to display, or play using WB3's DataTypes.

Features compared

	Datastore	Final Data	Twist 2
ARexx support	No	Yes	Yes
ASCII Import/Export	Yes	Yes	Yes
WB3 DataTypes	No	No	Yes
Picture Support	Yes	No	Yes
Query Function	Yes	No	Yes
Relational Features	No	No	Yes
Report Writing	Yes	Yes	Yes
Search Function	Yes	Yes	Yes
Mailmerge	Yes	Yes	Yes
Layout Tools	No	Yes	Yes
Logical and Maths Operators	Yes	Yes	Yes

Finding your way

Once you have designed your database and then added your data, you'll want to be able to access it quickly. One of the most basic methods for providing easy access to several records is to simply list them. Final Data's spreadsheet-like interface does this all the time, but Twist can also produce a similar display by using its list mode.

This is fine if you just want to casually browse through several records at once, but sometimes you'll want to find a record with a particular entry. For example, you might want to find a Mexican recipe that's ingredients do not include tomatoes – not easily done by browsing through casually. This is when a search facility comes in handy. Thankfully, all three products can perform searches.

Twist does this through its query tool. You can either do it by searching for a particular entry in a specified field (such as ingredients), or by searching for text that has been included anywhere in a record. If you use the search for text options, you can improve the chances of finding a matching record by selecting the likeliness sort option. With this option on the program for entries that are "like" the text string you've entered – of course, this will take longer since it will probably find a lot more files.

Datastore is blessed with both a find function and a separate query tool. The find function works in almost exactly the same way as its word processing equivalent, even allowing you to do a find and replace. The search can be limited to a specific field, or all of them. There is also an option to specify which direction the program should search through the records – this can save time with searches on large databases, when you know roughly where the record you want is. For more information on Datastore's and Twist's query features, please see the jargon-busting box.

Final Data has a find tool as well, but lacks a query function. To find an entry, the program will perform a search of columns, either downwards or upwards. As with Datastore, Final Data can also perform a find and replace operation.

It's in the report

While text searches can be an excellent way of finding information, when you want an overall idea of what your databases contain, you'll be grateful if your program has a report writing feature. A report can be used to obtain a complete listing of your files, based on the criterions you set.

This means that a report may range from a simple two-field per record affair, to a listing of all the information in every field of each record.

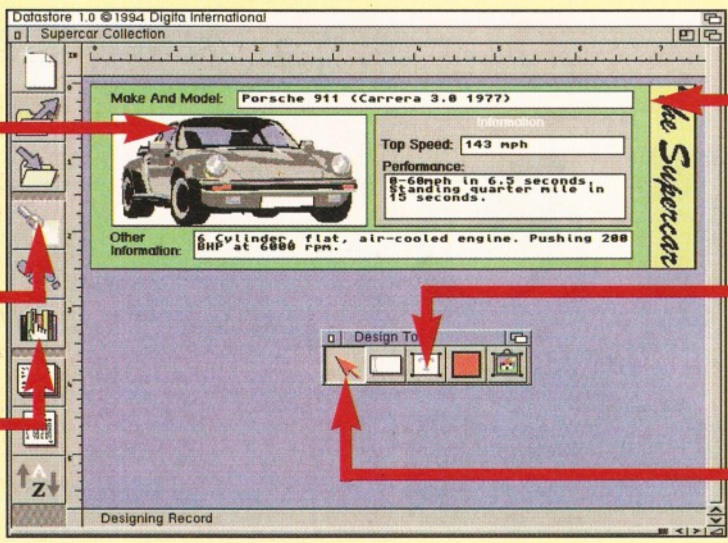
▶ 37

Datastore

Datastore is capable of displaying IFF images with a maximum of 256 colours – on AGA machines.

This is Datastore's search tool. Clicking on its icon will bring a requester offering you several options on how the search can be performed.

This icon is for Datastore's useful Librarian tool, which can be used to store lines of text.



While you are in design mode you can change one of the objects' attributes.

This is Datastore's caption tool which is used for labelling fields and images.

The arrow pointer tool enables you to move and resize any of the objects on screen.

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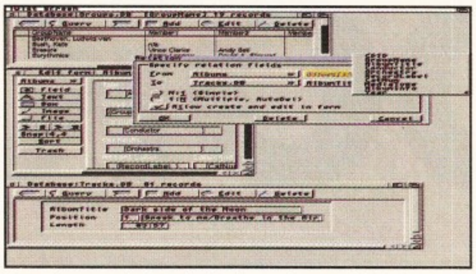
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Creating a relational database is easy in Twist – all you have to do is point and click.

35 ▶ It's a good way of presenting statistical information. Once again, Final Data takes a spreadsheet-like approach to its tasks. Its reports are basically a screen-dump. The only variation on this is that you can produce a report in a labels format.

Surprisingly, Datastore's report-writing is not as graphically based as the rest of its functions. Then again, reports are generally a matter of adding as much information on a page as possible. You can also choose which records are to be included in the report by adding conditions.

Twist's report-writing features are more or less the same as Datastore's. The main difference is that you are given more control over how the report will appear. You can simply move fields in a similar manner as you would with the form editor.

What's the difference?

Each of the programs reviewed have their own unique features – well, perhaps excluding Final Data (apart from its spreadsheet-likeness).

Among Datastore's main unique features is DigiSense, which includes things such as Auto Date, which automatically completes entries that you make for dates and times. It also has its Librarian tool, which can be used to store often-used lines of text, such as names and addresses – very useful indeed.

Twist has got to be the most feature-laden of the three – hell, it's got more features than the other two put together. One of the most exciting features that the program has, that the others lack, is support for DataTypes. This means that databases can contain virtually any type of data that you have the appropriate datatype for. At the moment, the majority of the DataTypes available are for pictures and sound files, but in the near future we can expect to see ones for animations and music mods.

However, the real power of Twist is being able to create relational databases. Using simple point-and-click methods, it is possible to link two or more fields together. This feature really come into its own when you start to link fields across databases. An example of this is linking an Amiga Format database with an Amiga Shopper one. You could link score fields in order to find out what score Format gave a product while viewing Shopper's database. There are plenty more differences between Twist and the other two, but it's Twist's relational abilities which really set it apart.

So which one is best for you? I've tried long and hard to think of the sort of person who would be well advised to buy Final Data, but I can't. The closest thing I came up with is someone who would rather spend £40 on a database that acts more like a spreadsheet, than buying a shareware spreadsheet with many of the same features.

Datastore is the ideal database for the beginner and the intermediate database users. It has plenty of features and has an excellent interface. It only loses out to Twist because it falls behind in terms of power features and speed. Nonetheless, the program is more than good enough to be considered for an Amiga Shopper Star buy award.

Twist might well be considered the ultimate database currently available for the Amiga. There are a couple of programs that may be a little more powerful, but there are none that can combine power and ease-of-use to the same degree. The most beautiful thing about Twist is that you can use it as a simple database, but it has the power to grow with your needs. ■

Jargon busting

Queries: This is a useful feature that can make finding the information you want easier. It works by temporarily restricting access to a few records. To determine which records will be included in a query, you can set certain conditions, such as finding all records which have a value >= to a certain figure, or records that share a text string.

Relational databases: A relation database is one that is linked to another database by one or several fields. This can be particularly useful when you have several databases with similar contents.

Final verdicts

Twist 2

Price: £99.95
Supplier: HiSoft
Contact: 01525 718181
Verdict: 94% Star buy

Final Data

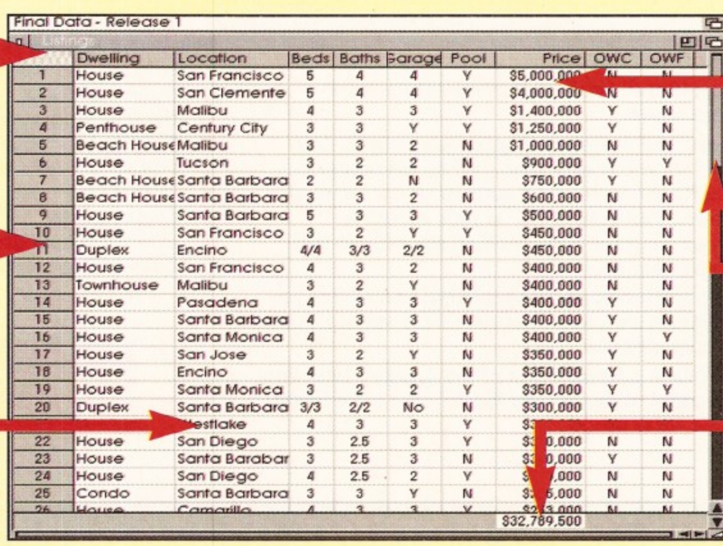
Price: £39.95
Supplier: Gordon Harwoods
Contact: 01773 836781
Verdict: 72%

DataStore

Price: £49
Supplier: Digita
Contact: 01395 270273
Verdict: 91% Star buy

Both Datastore and Twist 2 are superb products. They have plenty of powerful features and user-friendly interfaces. Although Twist costs almost double the amount of Datastore, it *does* have a few more advanced features and is horrendously fast.

Final Data



Final Data - Release 1

	Dwelling	Location	Beds	Baths	Garage	Pool	Price	OWC	OWF
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2	House	San Clemente	5	4	4	Y	$4,000,000	N	N
3	House	Malibu	4	3	3	Y	$1,400,000	Y	N
4	Penthouse	Century City	3	3	Y	Y	$1,250,000	Y	N
5	Beach House	Malibu	3	3	2	N	$1,000,000	N	N
6	House	Tucson	3	2	2	N	$900,000	Y	Y
7	Beach House	Santa Barbara	2	2	N	N	$750,000	Y	N
8	Beach House	Santa Barbara	3	3	2	N	$600,000	N	N
9	House	Santa Barbara	5	3	3	Y	$500,000	N	N
10	House	San Francisco	3	2	Y	Y	$450,000	N	N
11	Duplex	Encino	4/4	3/3	2/2	N	$450,000	N	N
12	House	San Francisco	4	3	2	N	$400,000	N	N
13	Townhouse	Malibu	3	2	Y	N	$400,000	N	N
14	House	Pasadena	4	3	3	Y	$400,000	Y	N
15	House	Santa Barbara	4	3	3	N	$400,000	Y	N
16	House	Santa Monica	4	3	3	N	$400,000	Y	Y
17	House	San Jose	3	2	Y	N	$350,000	Y	N
18	House	Encino	4	3	3	N	$350,000	Y	N
19	House	Santa Monica	3	2	2	Y	$350,000	Y	Y
20	Duplex	Santa Barbara	3/3	2/2	No	N	$300,000	Y	N
[illegible]	[illegible]	...estlake	4	3	3	Y	[illegible]	[illegible]	[illegible]
22	House	San Diego	3	2.5	3	Y	$3[illegible]0,000	N	N
23	House	Santa Barabar	3	2.5	3	N	$3[illegible]0,000	Y	N
24	House	San Diego	4	2.5	2	Y	$[illegible],000	N	N
25	Condo	Santa Barbara	3	3	Y	N	$2[illegible]5,000	N	N
26	House	Camarillo	4	3	3	Y	$2[illegible]3,000	N	N
							$32,789,500		

This is Final Data's interface – no it is definetly not a spreadsheet!

These numbers relate to the record's number.

Text can be entered into a cell, just as it would in a spreadsheet, by clicking on the cell typing.

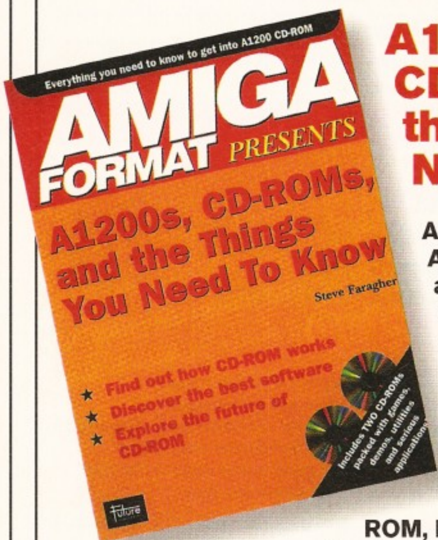
You can add numerical information and dates, as well as text entries.

You can use these scroll bars to view the rest of a large database by scrolling downward.

In a very spreadsheet-like manner, Final Data can perform automatic calculations on numeric fields.

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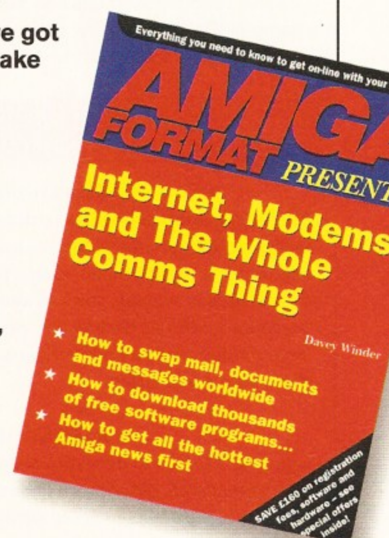
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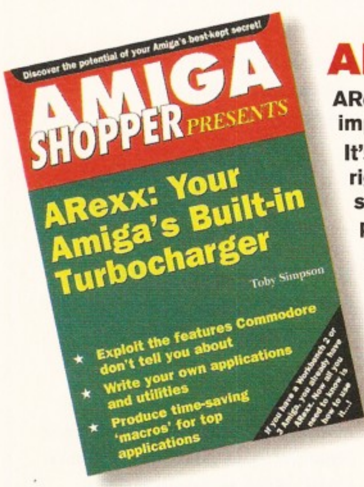
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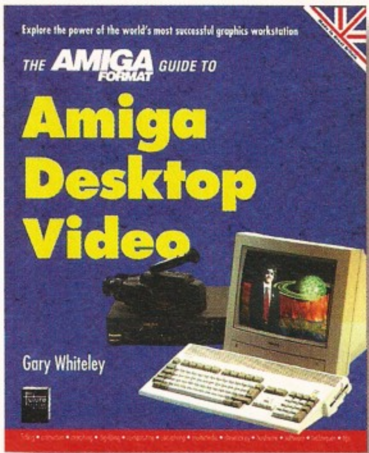
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- Function libraries
- Full ARexx reference
- Debugging
- ARexx 'ports'
- Controlling programs
- Automating tasks

Order No	FLB9052
Price	£17.95

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Amiga Desktop Video

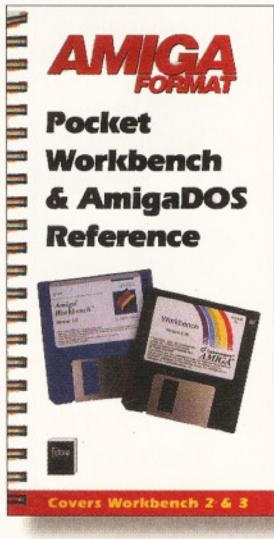
The Amiga is the world's premier low-cost graphics workstation. But its basic power, built-in expandability and ever-widening range of quality software and add-ons mean it's capable of highly professional results. All it takes is the know-how...

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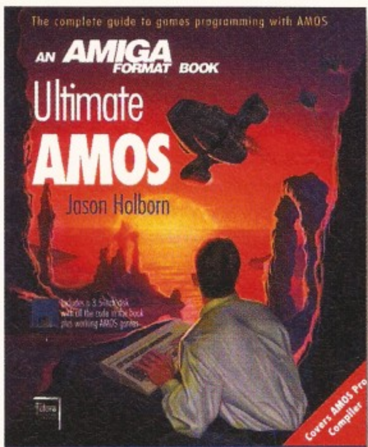
If you've just got your Amiga, Workbench and AmigaDOS can be confusing – unless you've got expert help on hand:

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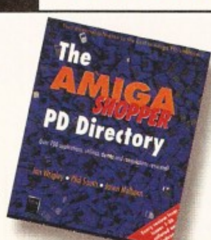
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PICCOLO-SD64

Fed up with flat, flickering displays and lifeless, lacklustre graphics? Then consider the Piccolo-SD64 graphics card and perk up your Amiga's outlook. **Gary Whiteley** *gets illuminated.*

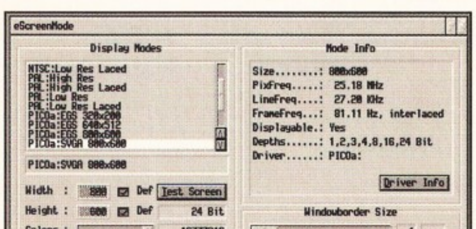
Even AGA Amiga 4000s can't display 24-bit quality, though they come close. But what if you've got a dull old Amiga 2000 or 3000 that needs a makeover? Adding a 24-bit graphics card and memory is as good a way as any to improve the old lag. But why not go further – why not do it all in one go and get the added benefit of great-looking displays? Which is what you get when you add a card like the Piccolo-SD64 (or Picasso II, for that matter) to your Amiga.

Get plugged in

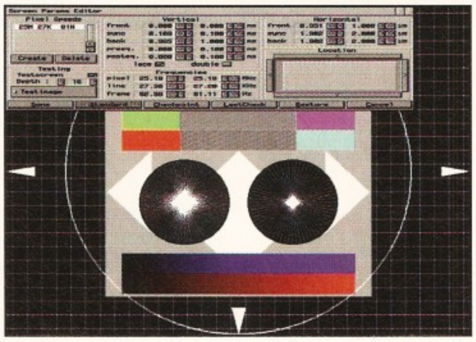
Installing the SD64 card is easy – plug it in to an available Zorro slot. From then on things can get tricky, depending on your knowledge of German, the type(s) of monitor you're using, your Amiga and how much memory it contains.

A 15-pin VGA-style connector provides the Piccolo's image output to a multisync monitor, so if you've usually got your monitor wired up to the Amiga's 23-pin RGB output (as I have, since my multisync is one of the rare ones which goes down to 15.6KHz PAL and I usually have it connected to my OpalVision card), you'll have to either nip out and find a new lead or build your own (as I did).

You'll also need to connect a second monitor to the Amiga's RGB port (if you're going to use a two-monitor set-up) or, for a single monitor configuration, connect the supplied 9-pin D connector to either a Silver Blob monitor adaptor, or build your own crossover to connect it to the SD64's Amiga/EGS autosensing input. The former is preferred.



eScreen is used to define the "default" screen mode on which any program which does not specify retargeting parameters appears. There are plenty of options to choose from.



EGSTweaker enables you to create your own screen modes to drive your multisync monitor to its optimum and set up screens which the default drivers don't cover.

Next comes the software installation, which is where you wish you knew more German, since the Installer options are all in German. Of course you can just do an automatic Novice install, but that's no fun, so if you want to specify the parts of the software to install, you'll need guesswork to get you through. Actually, it's not so hard, but the crazy thing is that although the Installer presents itself in German, the Installer script is written in English, with only the on-screen comments in German.

Finally, A2000 owners with more than 8Mb of RAM installed will have problems. Officially, the A2000 can only handle 8Mb of Fast RAM (plus 1Mb of Chip RAM). Unofficially, cards like GVP's Combo accelerators can change all that, but the SD64 is strictly legal, so if it can't map its own RAM (2Mb or 4Mb, depending on the model) into the legal 8Mb RAM area, then it won't run! So it's time to disable any Amiga memory above the 8Mb total and try again. Or is it? Perhaps not, because I found an undocumented jumper on the card, shifted it and voila, no need to disable my extra memory! Perhaps I just got lucky – I have no idea if this would work in every instance, so watch out if you've got loads of RAM in an A2000 and are contemplating an SD64 – it may mean losing the use of some of it.

One monitor or two?

For most of us, desk space and cash are at a premium so we use just one monitor with our Amiga. With the SD64, you can run two monitors simultaneously. One monitor receives the standard Amiga output (in other words any of those programs which aren't being retargeted), whilst the other – and it would really have to be a multisync monitor – gets on with the heavy-duty graphics and software tasks for which the SD64 was designed. You may be wondering how the mouse pointer works on two screens, but by telling the SD64 how your monitors are arranged it knows that when you move the mouse off one screen it appears on the other. Problem solved.

I found using a single, multisync monitor sufficient for my needs, but if you don't relish the thought of a second or two's delay whilst the SD64 switches its display back and forth between standard Amiga output and its own, then you might think the extra outlay and space required worthwhile.

The software

There's plenty of software provided with the SD64, which is why around 6Mb of hard disk space is required for a full installation. In addition to the Piccolo's own software, there are some interesting EGS utilities and tools (including a nice collection of screen-blankers), as well as two paint programs (TVPaint Junior and PicoPainter) and a

Programs which don't work with Piccolo-SD64

The programs listed here either won't work at all or have problems working with the Piccolo-SD64 retargeting system. Apparently, this is because the software is not fully compliant with Commodore's guidelines – so don't blame the Piccolo! Of course, such software still works as usual on a standard Amiga screen, but you won't get the benefits of the Piccolo's improved resolutions and colours. This list – which is not complete – is compiled from a list in the manual and from my own experience:

Brilliance, Caligari, Deluxe Paint, FreeForm3D, ImageFX, ImageMaster, Lightwave3D, Modeler3D, ProDraw (the manual says it works), Scala MM300, VistaPro.

All in all, some pretty major software seem to be doing their own thing.

Hardware tech spec

- Zorro II/Zorro III Autosensing
- 2Mb or 4Mb Fast video RAM
- VGA controller with 64-bit graphics engine
- 1,2,4,8,16 and 24/32-bit modes
- Maximum 16.7 million on-screen colours
- Maximum pixel clock speed 110MHz
- Programmable resolution from 320x200 to 1600x1280
- Supports double buffering and multiple screens
- Multimedia expansion bus with special genlock support
- Loader/Saver for ADPro, Imagemaster, Real3D

Coming up

The SD64 will soon support the new CyberGfx graphics system, so EGS won't be necessary any more. Additionally, a plug-in genlock module is nearing completion, though no pricing or other details were available as Amiga Shopper went to press.

display/slideshow utility called DIA. Oh yes, and a cut-down demo of Boulderdash to show off the EGS graphics.

Get set

With the software installed it's time to connect a monitor to the SD64 and prepare for action. The manual isn't clear in explaining how to get it all together, so be ready for some headbanging. On booting, the SD64 is configured into the system and you are presented with a Workbench screen. Now you need to set up how the SD64 displays this screen and the way it displays other programs.

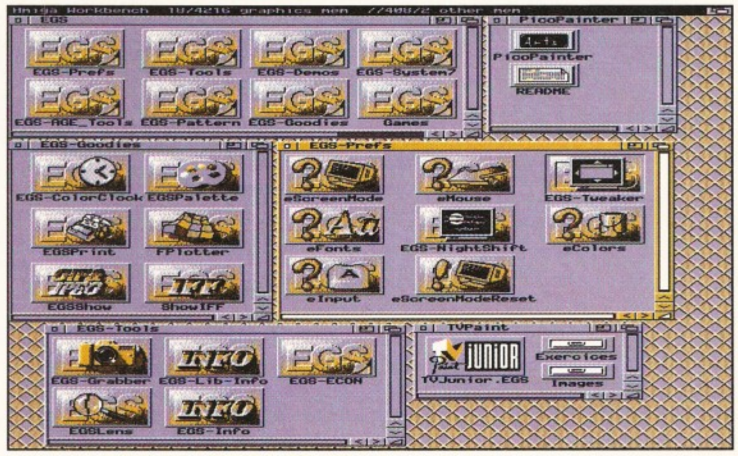
This depends on the capabilities of your monitor and your Amiga's memory, but in general most people will reap the benefits of fitting an SD64 by plumping for a 24-bit 800x600 pixel SVGA or EGS display for great-looking, flicker-free displays. Be aware though that if your Amiga doesn't have ECS or AGA chip sets, the SD64 won't emulate them on a standard OCS machine – you still only get a 16-colour Workbench.

With the EGSTweaker program you can define custom output resolutions for your particular monitor, although there's a good basic choice to get you started. If you're not very technical EGSTweaker might appear scary, but if you're careful and follow the manual you shouldn't have any problems setting up display modes. There are too many combinations to list here, but if you fancy 1, 2, 4, 8, 16 or 24-bit screens at stunningly high resolutions, then the world's your oyster.

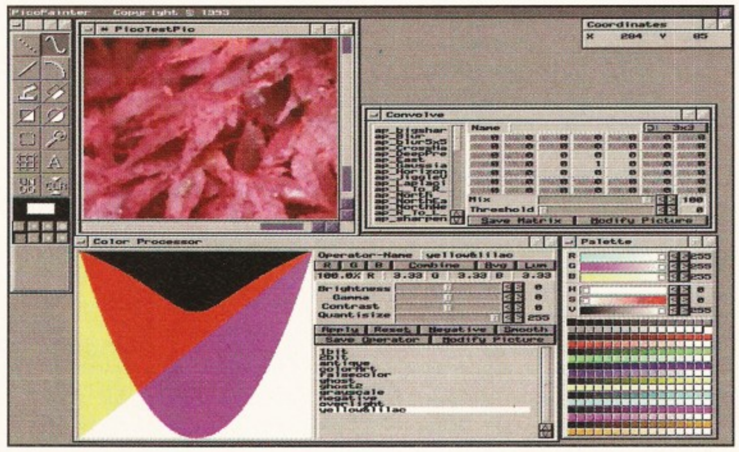
The second important program is PicoRetarget, which controls how any applications are displayed. With PicoRetarget running, every time you launch a new program a requester appears asking whether or not to retarget the program's display to the SD64, and in what screen mode. After making your choices and storing them, each time the program is subsequently run it is automatically retargeted (or not, as the case may be) to the SD64. Not all programs retarget successfully, but those which can benefit from more stable displays, faster screen refresh and enhanced resolutions.

Retargeting programs

The Piccolo-SD64 uses a retargeting system to promote any suitable software to the user's preferred screen resolutions. Not all software can be retargeted, but, when it is, the benefits can be appreciable. For instance, it's possible to run Imagine 3 on an 800x600 (or greater) EGS or SVGA screen with no flicker and very fast screen redraws (thanks to the Piccolo's built-in blitter). This provides sharper detail and makes modelling with Imagine more enjoyable. Similarly, using ProPage 4 is massively easier on the eye and almost truly WYSYWIG (What You See Is What You Get). For those involved in CAD, 3D modelling and DTP the high resolution, flicker-free screens provided by retargeting programs to the Piccolo-SD64 (and preferably to large multisync monitors) will be very beneficial. And once you've told the Piccolo software how to retarget a program it happens automatically each time it is run.



Here's all the software you get with the SD64, and you'll need a whopping 6Mb of hard disk space to store it all.



Whilst not as good as some 24-bit paint software, PicoPainter has lots of useful points, though it requires a decent wedge of memory to get the best out of it.

Go graphic!

Of course the advantage of a card like the SD64 is that not only can it provide you with an 800x600 (or even 1,600x1,024) hi-res interlaced, flicker-free, all-on-the-screen Workbench, but it can also work in true-colour 24-bit, which is great if you're into professional graphics and are itching to see your creations as they should be, not as your 262,000-colour AGA Amiga (or worse) can display them. To this end a number of graphics programs are provided with the SD64. For simple display work there are several programs – including ShowIFF and ShowEGS, as well as the more complex DIA, which includes an ARexx interface for doing slideshows and limited animation displays. Between them these programs can handle a range of image formats, including IFF, JPEG, YUV, PPM and GIF, but the real stars are the paint programs, TVPaint Junior and, particularly, PicoPainter.

TVPaint Junior is a cut-down version of TVPaint, so it doesn't have all the bells and whistles of the full version, but it is fine for semi-pro work. Likewise, PicoPainter isn't the best 24-bit paint software in the world, but it includes some great image processing tools and is easy to use. Uncannily, it wouldn't look out of place on a PC, but don't let that bother you. A couple of years ago these programs alone would probably have cost £200-£300.

If you've been considering upgrading your A2000 to 2Mb of Chip RAM by adding one of DKB's MegaChip cards (which cost around £160) you might be better off adding a Piccolo-SD64 instead, since it provides its own "Chip" memory. Sure, a Piccolo-SD64 costs more, but while we wait for Commodore to sort themselves out, you could be upgrading your current Amiga instead of trying to find an A4000 to buy. In any case, if you want better graphics and big, flickerless, displays on your A2000, A3000 and even A4000 then the Piccolo-SD64 has it all. At last, some decent competition for the Picasso II and the Retina! ■

Piccolo-SD64

Price: £299.95 (2Mb version), £349.95 (4Mb)
Supplier: Blittersoft
Contact: 01908 261466
Verdict: 90% Starbuy

CD-ROMs

In this month's roundup of new CD-ROMs **Graeme Sandiford** *takes a look at an Imagine-only CD from Germany and a collection that can give you access to all of the files on the Aminet.*

CDs are pretty cool, aren't they? I mean, they're all shiny and slender, but can store tons of data – not to mention their ability to store and play back both music and video information. Despite being a marvel of modern-day storage capacity and general silveriness, even the massive storage space available on a CD-ROM is not enough to contain the whole of the Aminet site.

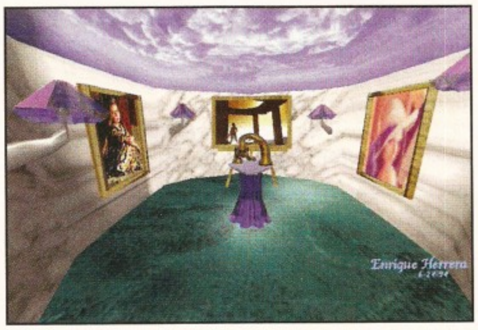
What's the Aminet?

The Aminet is the area of the Internet that is reserved for the Amiga and its devotees. Quite simply, it is huge. To give you an idea how big it is – 4Gb – to copy its entire contents to floppy disk you would need more than 4,000 disks. The fact that the Aminet is so big has meant that all of the Aminet CD-ROMs so far have only contained a fraction of the files that are available.

Until now, that is. With the arrival of a new CD-ROM collection from Germany called Aminet Set. The first volume, which is a snapshot of the entire site taken in January 95, is a collection of four CD-ROMs. They are divided into subject categories that match the directory structure of the site itself.

According to the back of the case, disc A contains the dev and utility drawers. However, it also contains a few other directories – the leftovers from the other discs perhaps? Anyway, the contents are intended to be of use to software developers and include programs such as debuggers. There is also source code in several programming languages, including C, Assembler, Oberon and AMOS. The utility directory contains all sorts of software, from cli tools to screen-blankers.

Disc B contains the graphics programs, picture files, text programs and several text files. The graphics programs directory includes file converters, animation viewers, 3D utilities and 3D objects. There are also some stunning examples of the creativity of Amiga artists, both hand-drawn and ray-traced.



An image plucked from the Internet – sort of...

Disc C is full of mainly demos and games. However, there are some interesting Comms programs and files, as well as some hardware-related files. The Comms directory has files and programs to do with just about every Comms-related thing you can think of. You'll find Internet-related programs, software to run your own BBS, terminal programs and E-mail handlers.

The final disc, disc D has some of the less glamourous programs such as business software and disk tools. But it also contains some decidedly groovy music modules and musical utilities.

I was quite impressed by Aminet Set – there are plenty of interesting files and some very useful programs. The only thing this collection is missing from the real thing is being able to talk with other users. The Aminet Set is the next best thing to being there – it's a lot cheaper too!

Aminet Set

Price:	£29.99
Supplier:	PD Soft
Contact:	01702 466933

Verdict: 92% — Star buy

Imagine 3.0 Enhancer

If there is one area of computing that has really benefited from the introduction of CD-ROMs, it has to be graphics. Ray-tracing, in particular, is a great target market for CD-ROM producers, because the files, images and objects can be so large.

Last issue we took a look at the LightROM CD which was primarily aimed at users of LightWave. The Enhancer CD is dedicated to Imagine, the Amiga and PC versions and costs roughly the same. However, rather than trying to cram as many small PD objects as possible on to the disk, the producers have decided to add just a few high-quality objects.

The main difference between this 3D CD and many others, such as Syndesis' own, is that the objects are not PD. This means the files cannot be shared with your friends, but it does mean that they will be more exclusive. This is quite an important factor to consider if you intend to use the objects in any commercial endeavours.



One of the Imagine Enhancer's gallery pictures.



This rather tidy little jeep is just one of the highly detailed objects you'll find on the Enhancer CD.

The main directories are for pictures, objects, image maps, fonts, backgrounds, anim maps and a gallery directory. As the CD is from Germany, the directory names are German, but it shouldn't take you long to figure what files are where – or perhaps I have been reviewing too many German products?

However, one thing that will cause a problem is the structure of the disc. Getting the scenes, objects and maps to work correctly is a pain in the butt. OK, if you've been using Imagine for some time and know how it works and have a reasonable understanding of Workbench, you can figure it out. However, for 50 quid, I don't expect to have to fiddle around with the product before I can use it – at least not for a CD!

That moan aside, the objects are of an exceedingly high standard, although I'm not exactly wild about some of the maps. However, one directory that had our Art Ed cooing appreciatively was the backgrounds, one which contains plenty of cloudscapes and rolling hills – lovely.

To sum it all up, I am a little disappointed – the objects are beautiful, but the price and the hassle involved in getting it to work is just too much. ■

Imagine 3.0 Enhacer

Price:	£50
Supplier:	Gordon Harwoods
Contact:	01773 836781

Verdict: 67%

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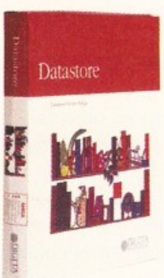
Turbotech Clock Cartridge

Your Amiga will always know what day it is with this handy device – even after it's been switched off! Once installed, your Amiga will boot up with the correct time and date already set. Simply fits into the disk drive port (or on the back of your second drive). Complete with software.



Description	Turbotech Clock Cartridge
RRP	£19.99
AS price	£17.99
Order code	AMFCLO

Datastore



Datastore is a revolutionary database which is accessible, sophisticated and powerful, yet easy to use. The number of records is limited only by the amount of RAM you have available (at least 1Mb with WB2 or 3). Easystart templates that accompany the package include Club Membership, Recipes, Address Book and a complete up-to-date Amiga Format magazine guide. The Amiga Shopper magazine guide, on the March AS47 Coverdisk, has been designed to be used with this ground-breaking release.

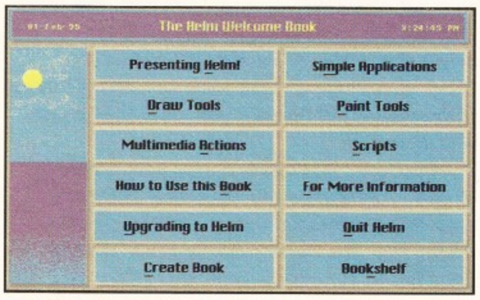
Description	Datastore
AS price	£49.99
Order code	AFDAST

Mouse 'n' Mat



At last! A quality replacement-mouse at a bargain price, complete with mouse mat. The 260dpi resolution mouse is 100% Amiga- (and Atari ST-) compatible and both buttons are fully micro-switched for maximum reliability and performance.

Description	Mouse 'n' Mat
AS price	£12.99
Order code	AFMM



Helm

A true multimedia authoring system for the Amiga, Helm earned 91 per cent when reviewed by our Consultant Editor Nick Veitch in Amiga Format. Create custom image editors, personal information managers, presentations, kiosks, free form databases, or educational courseware. Helm is both an authoring system and a graphics program, combining draw, paint and image processing tools with a scripting language, a hypermedia database manager and an assortment of user interface objects.

Description	Helm
AS price	£99.95
Order code	AMF503

XL144E Fax Modem

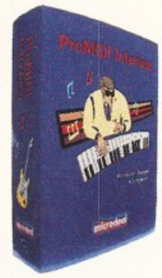
Find out what all the .Net fuss is about at an unheard-of price! The Information Superhighway will beat a path to your door when you get your Amiga online with this BT-approved 14,400 speed modem. Everything you need to get online (cables, manual, PSU and connection software) is included in this astonishingly low-priced, high-performance package. It even looks good, too. What more could you want?



Description	XL144E Fax Modem
AS price	£139.99
Order code	AFXLMD

Midi interface

Push your Amiga's musical talents to its limits with the fully-featured ProMIDI interface, enabling you to connect synthesizers and drum machines to your Amiga and use the samples with Amiga Format's Music-X and OctaMED Coverdisks.



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Description	Midi Interface
RRP	£24.95
AS price	£19.95
Order code	ASMIDI

Technosound Turbo 2

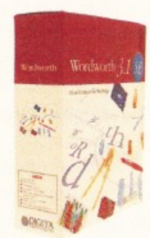
Like the original Technosound Turbo, version two of this sampler from New Dimensions enables you to grab digitised sounds and sequence them into compositions. It also features many improvements and new functions, including direct-to-hard disk recording, and a built-in tracker. The package contains a digitiser and a set of audio leads.



save £10

Description	Technosound Turbo 2
RRP	£39.99
AS price	£29.99
Order code	AMSTT2

Wordworth 3.1SE



This is the very latest version of the most successful Amiga word processor ever. Complete with online help, Auto Correct, drawing tools, TextEffects, a 116,000 word Collins spell-checker and thesaurus, 3.1SE has been specially created to run on a base A1200 with 2Mb and a single drive. As we said when we awarded it an impressive 85% in our February 1995 issue; "The best value word processor currently available on features and price".

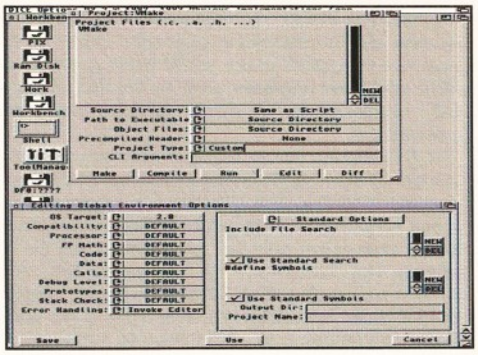
Description	Wordworth 3.1SE
AS price	£49.99
Order code	AFWWSE

AS binder



If your mags live in large piles on the floor, and you can never find the one you want, then keep your AS collection neat and tidy with these practical, yet stylish, white AS binders.

Description	One binder
AS price	£5.99
Order code	AS108
Description	Two binders
AS price	£9.99
Order code	AS109

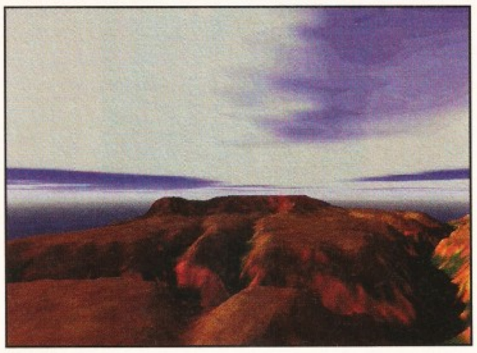


DICE 3.01

Save over £30 when you buy the full version of our DICE Coverdisk in issue 47. The full package comes on five disks, with a 450 page manual, and new features, including: no limit on the number of procedures in each file; revision control system; link libraries for 1.3, 2 and 3; extra link libraries; higher maths functions such as FPU; support for bitfields, pragmas, etc.

save £30

Description	Dice 3.01
RRP	£129.99
AS price	£98.95
Order code	AMS501

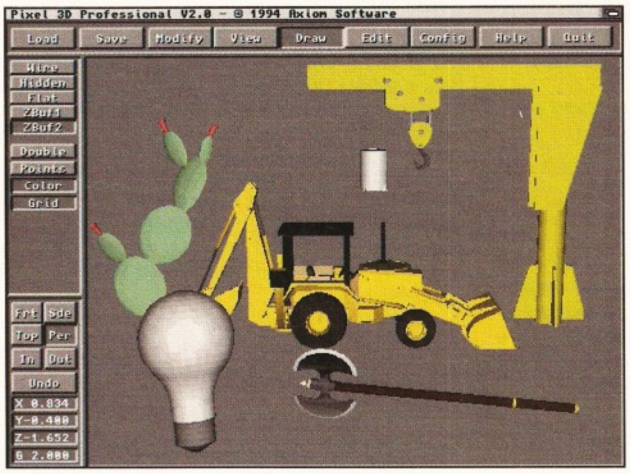


Vista Pro Lite

This truly amazing fractal landscape program from Meridian enables you to build your very own scenery on your Amiga. After you've created the perfect landscape, you can animate it to create stunning fly-bys, or use it as backgrounds in your own games, pictures or 3D renders. *And* it even works on standard A1200s. One not to miss!

save £20

Description	Vista Pro Lite
RRP	£59.95
AS price	£39.95
Order code	AMSVIST



Pixel 3D Pro V2

save £70

If you are a 3D artist, then you will find this excellent 3D object manipulation program quite mind-numbingly useful. Not only can you convert objects from one 3D format (such as Imagine) to another (such as LightWave), but Pixel Pro V2 also has a wide selection of modelling tools.

Description	Pixel Pro V2
RRP	£199
AS price	£129
Order code	ASHP3D2



Inkjet Refill Kits

(Black And Colour)

An easy – and extremely cost-effective – way to keep your inkjet printer topped up with the black (and coloured) stuff. Containing full instructions, filling syringe and enough ink to fill most cartridges at least twice, these kits are suitable for the following printers: HP Deskjet, Deskjet Plus, Deskjet 500, 510, 520, 500C, 550C, 560C; Olivetti Bubblejet JP150, 250, 350; Canon Bubblejet BJ10e, BJ10ex, BJ10sx, BJ200, BJ130, BJ300, BJ330, BJC600; Epson Stylus 800, 1000. The kits contain the best quality thermal ink and are dispatched in packs of two (allowing you to refill your cartridge, oh, at least four times).

Description	2x Black Inkjet Refills
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Order code	AFIJBK

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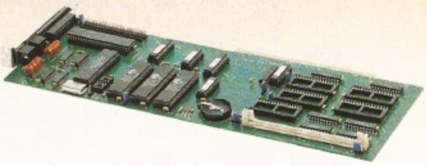
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EMPLANT

E586DXSM Emulation Module

The new E586DX emulation module offers a high speed 586DX (FPU, MMU, and new instruction set) emulation with complete low-level architecture support, giving you the ability to run DOS, OS/2, NT, Windows 3.x, and even Chicago! There is support for MDA, CGA, EGA, VGA, SVGA video modes (dependant on hardware, AGA or a supported graphics card is required for VGA/SVGA) , sound, joysticks, floppy drives, hard drives, extended memory, and more!



Macintosh® Emulation Module

The Macintosh emulation module is a 'generic' Macintosh with the speed of the emulation depending on the processor your Amiga is using. An A3000 is equivalent to a MAC IIci. An A4000 is equivalent to a Quadra 900. Support for up to 16 colours is provided for non-AGA machines. A4000 owners can use a full 256 colours! Up to 24 bit (16 million+) colours is supported using third party video boards. Built in multiple file transfer allows for quick and easy transfers between the Amiga and MAC emulation. Support for AmigaDOS devices, Scanners, CD ROM, MIDI, SyQuest removable drives, Printers, Modems etc. Full stereo sound is supported too! Requires Macintosh ROMs (not supplied) and 68020 or better.

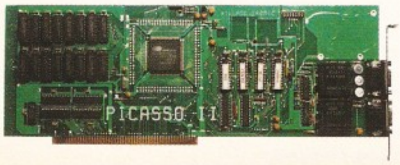
The possibilities with a multi-platform machine are endless. Now you can take advantage of a whole host of great software previously unavailable, and use them to compliment each other. By upgrading your Amiga (extra memory, faster processor, etc) you instantly upgrade your emulation too! All major graphics cards are supported for improved video performance such as: CyberGraphics, Picasso II, EGS-Spectrum, Vivid-24, Rainbow II, Rainbow III, Visiona Paint, Merlin, Retina, Retina Z3, Piccolo, PiccoloSD64, EGS110/24, and OpalVision!

Blittersoft are the exclusive European distributors for Utilities Unlimited. We provide a full technical support service, as well as software upgrades to all official UK boards. Check before you buy.

EMPLANT BASIC	£249.95
EMPLANT OPTION A (AppleTalk ports)	£299.95
EMPLANT OPTION B (SCSI)	£299.95
EMPLANT DELUXE	£349.95
E586DXSM MODULE	£119.95

PICASSO II

PICASSO II is the leading graphics card on the Amiga. It offers unrivalled support and retargetable graphics on any Zorro based Amiga. Workbench emulation offers 256 colours, even on non-AGA machines (Requires OS3.1) at resolutions up to 1600x1280. Supports HiColour (16 bit) and True Colour (24 bit) graphics - 16 million colours!

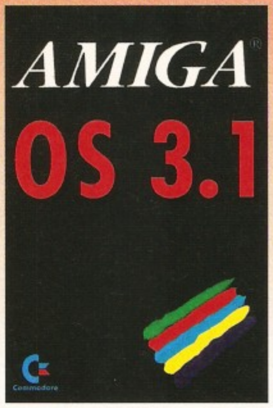


There is no longer a Chip RAM limitation and screen configuration is provided through PicassoMode, which allows the creation of custom screens quickly and simply.

PABLO is the new Video Encoder option for *Picasso II*, expanding it with two additional video ports, one standard Composite Sync Signal, and one S-VHS (Y-C) compatible port. All PAL compatible video devices can be plugged into Pablo, such as a colour TV or a video recorder. Pablo has 15KHz overload protection and is supplied with cables/adapters, Animation examples and a 24 bit animation player.

PICASSO II 2MB	£299.95
PABLO VIDEO ENCODER	£129.95

OS 3.1



Many of the latest software requires the latest operating system. Now you can upgrade to KickStart 3.1 for virtually any Amiga. Non-AGA machines can deliver a 256 colour Workbench with OS3.1 and Picasso II.

OS3.1 FOR AMIGA 500 OR 2000	£84.95
OS3.1 FOR AMIGA 1200, 3000 OR 4000	£94.95

Please specify machine. Also note that revision 3-5 motherboards require linking to be added. We strongly recommend that a professional computer repair/service company undertake fitting. We cannot exchange any damaged or incorrectly fitted components.

ARIADNE

Ever wanted to set up a network but been afraid of the complexity involved? Now there is a simple but effective solution for any Zorro based Amiga. In addition, Ariadne has two extra parallel ports and includes Commodores industry standard software solution ENVOY.
Ariadne offers 10Base-2 (Thin ethernet, coax cable) and 10Base-T (Twisted pair, western jacket), Socket for a boot ROM, SANA-II compatible driver for ethernet and parallel port, 32Kb cache to support the CPU and full manuals.

You can hook up additional Amiga`s to the parallel ports with Liana.

ARIADNE	£199.95

LIANA

Liana is the ideal solution for a quick, easy yet efficient connection between two Amiga`s. Simply plug the special cable into the parallel port, install the software and you are ready to go. Now you can share hard drives etc. without on a small budget. The software supplied is ENVOY.

LIANA	£59.95

PICCOLO SD64

The Piccolo SD64 graphics board is a state of the art Zorro II/III (auto-sensing) graphics card with a built in Amiga video pass-through and expansion port for forthcoming modules (such as video encoder).
Using the latest 64 bit Alpine graphics processor, 64 bit blitter and fast Zorro III interface, incredible 24-bit speeds are achieved.
Piccolo SD64 comes with the latest EGS system and 24-bit paint package as well as loaders/savers for many common packages and a slideshow program. A full Workbench emulation is also part of the package.
The board is available as a 2Mb or 4Mb system, with no chip RAM limitations.
The maximum pixel clock is 110 MHz and user definable resolutions to 1600x1280 are achievable.
The 2Mb board can display a maximum of 800x600 in full 24 bit colour, whilst the 2Mb board can display 1024x768 (interlace).

PICCOLO SD64 2Mb	£299.95
PICCOLO SD64 4Mb	£349.95

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CyberStorm is a fully modular system offering huge increases in power and expansion capabilities. This design allows processor upgrades from the base 40MHz 040 system to the world beating 50MHz 060! With additional upgrades such as the SCSI-II and the I/O module, CyberStorm offers unequalled possibilities.
The CyberStorm carrier board inserts into the 200 pin Amiga fast slot, and has ports for the CPU, Memory and I/O modules. The CPU module is prepared for clock speeds to 80MHz, with active cooling and an extra expansion port for future modules (ie DSP board). The CyberStorm memory board can carry 4 SIMMs using standard 72 pin modules, single or double sided and either 4,8,16,or 32Mb (Max 128Mb). Data transmission of >50Mb/sec is achieved. The CyberStorm I/O module consists of a Fast SCSI-II interface with up to 7Mb/s Asynchronous, 10Mb/s Synchronous transfers and Active bus terminations, 10Mbit/s Ethernet controller (10BaseT) with SANA driver and BNC/DSub 15 connectors and high speed 2MBaud RS232 Serial interface. The CyberStorm SCSI

CyberStorm 040 40 MHz No proc.	£449.95
CyberStorm 040 40 MHz	£729.95
CyberStorm 060 50 MHz	£899.95
CyberStorm Z3 SCSI module	£149.95
CyberStorm I/O module	£349.95
CyberStorm upgrade 040 to 060	£399.95
CyberVision 2Mb	£299.95
CyberVision 4Mb	£369.95

module has the same specification as the SCSI interface on the I/O module.

The CyberVision64 graphics card comprises of a 64 bit graphics processor and Blitter with 32 bit Zorro III bus interface. It is available in 2Mb or 4Mb versions (using common memory modules), offering up to 1600x1200 interlaced, 1280x1024 non-interlaced and 135MHz video bandwidth. Planar-to-Chunky pixel conversion is performed by on board hardware, some 6-8 faster than typical software solutions and accelerating Workbench emulation. Support for draggable and virtual screens, expandable bus for future cards (video, JPEG, MPEG..) and Amiga video pass-through.

The CyberStorm 060 and CyberVision64 should be available March / April. We have back-ordered - Reserve your unit NOW!



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Video DAC 18

Do you have to buy an expensive graphics board or an AGA Amiga if you want improved graphics? **Graeme Sandiford** *thought so... until he heard about Video DAC 18, that is.*

There is one question I am asked every Wednesday (reader-call day) afternoon: "Does the OS 3.1 upgrade give you AGA-graphics"? And every time I reply, with saintly patience: "No I'm afraid not, if you want improved graphics you'll have to buy an expensive graphics board – or an AGA Amiga". It's almost become a ritual, or some sort of litany. But there you have it – you can't have an AGA-machine unless you buy one, or spend the equivalent amount of money... sad, but true.

Well, as you have probably guessed, my Wednesday afternoons will never be the same thanks to a new product called the Video DAC 18. At first sight, the DAC is not particularly impressive – just another small, black plastic box that might be confused with a hand-scanner interface, or even an oversized dongle. However, inserting this nondescript black box between your Amiga's video port and your monitor gives your Amiga as many colours as an AGA-machine.

Needless to say, this is a long-awaited product. As suggested by its name, the DAC 18 gives you 18-bit colour. This means up to 262,144 colours on screen at once – equal to the colour standard you'll get from HAM-8.

Plug 'n' play

Installing the DAC hardware couldn't be simpler, you just plug it in between your monitor and your Amiga and away you go.

The software installation is just as straightforward. The only slightly tricky part is adjusting the picture to get it as sharp as possible on your monitor. This is a bit like adjusting the signal from a video – just turn a screw on the top of the unit until you get a picture you're happy with.

At this point in the review, or even earlier, veteran users of the Amiga are probably thinking that this DAC thing sounds a lot like Digital Creations' DCTV. I suppose they are similar, but the main differences between the two are that DCTV is more expensive and offers more screenmodes. This brings me on to my first gripe – the DAC's screen resolution.

You see, the DAC can only display images that have a horizontal resolution of 320 or 384 pixels. It doesn't matter what the vertical size of the image is, but it must be 320 or 384 pixels wide (the same width as the Amiga's standard and overscan lo-res screenmodes). This is a shame since there is more to improving the quality of graphics than simply increasing the number of colours.

For example, while extra colours can greatly improve the quality of computer-generated images (such as ray-traced or scanned pictures), if you are drawing an image by hand an increase in resolution can be almost as beneficial. If the DAC is going to become a viable substitute for the AGA-chipset, it *has* to match its resolution as well as its colour-depth.





These are actually HAM-8 images, but the DAC gives you as many colours. However, the quality of the images would be better if they were in hi-res.

The soft option

I thought the DAC hardware was a reasonable purchase for the price, despite its limited screen resolution. However, it takes more than hardware to make a decent graphics system. The DAC's software comes in three parts: Video_DAC_18, DAC_On and DACDisplay.

As you might expect, DAC_On activates the DAC system and DACDisplay displays images that are in the DAC image format. Video_DAC_18 is the program that is used to convert images to and from the DAC image format. This is the most important of the three because it determines the degree of compatibility with the DAC system and other image handling programs.

As such, you might have expected it to have support for the JPEG format since it has become so widely used. Unfortunately, it doesn't. Nor can it load images with widths other than... you guessed it, 320 or 384. The program should be able to scale images to the appropriate size, thereby saving you from doing so – then again if you're going to have to convert JPEGs, you may as well resize them while you're at it.

Quite simply, the software is not of an acceptable standard – there are just too many features missing. Aside from the lack of support of JPEGs and the resolution restrictions, they might have thrown in some rendering modules for ADPro or ImageFX. While it's true that these might appear from third party developers in time, it would have been much better if the software had a broader range of features to begin with.

To sum up this, on the whole, disappointing encounter, let's just say that the DAC 18 is by no means a replacement for the AGA chipset and makes a rather poor showing as a graphics card. The software seems to have been rushed, which is a shame as a few more features and some form of Workbench emulation could have turned the DAC 18 into an excellent budget graphics system. Having said that, maybe the next few months will see some third party modules, or even an upgrade – well, there's no harm in hoping... ■

Video DAC 18

Price: £39.99
Supplier: Power Computing
Contact: 01234 273000
Verdict: 66%

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CanDo 3

If you are looking for a program that enables you to produce both multimedia and other applications easily, then you should read **Graeme Sandiford's** *review of CanDo. Could it be the ideal choice?*

The relationship between humans and computers has never been an easy one. Have you ever tried to get a computer to do what you want it to? You can't just go to it and say "I'd like you to do this, that and the other" – it doesn't work. Trust me, I've tried.

It takes a rare sort of individual, known as a programmer, to get a computer to do exactly what you want. Even then, the programmer needs to learn new languages and has to use complicated programs. But wouldn't it be nice to be able to create your own applications almost as easily as drawing a picture in an art package?

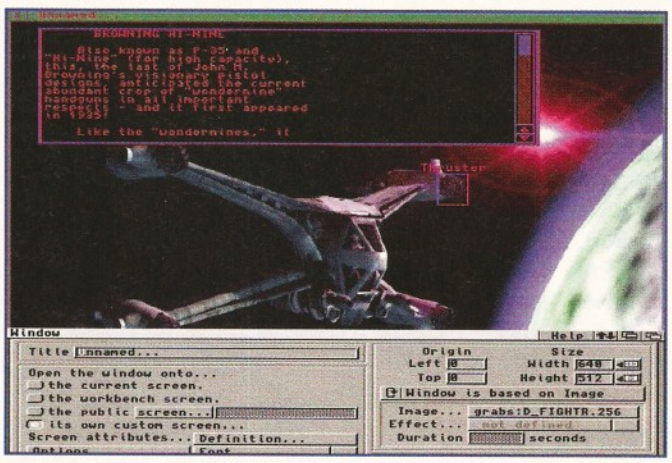
Well, that's the idea behind many of the authoring packages that are now available for the Amiga. CanDo 3 and similar programs are designed to work in an object-orientated manner. The easiest way to understand this is to think of the program that you're creating as being made of several elements or objects. For example, a file requester, a button, a background picture, or even sounds can all be looked at as separate components.

To create a program in CanDo, you first determine which components you need for it. These can then be drawn on screen, or loaded using a variety of built-in tools. It's great being able to draw your objects on screen, but what if the program you are designing requires more than one screen? This is where CanDo's Card system comes in. A simple way to explain it is to think of each Card as a separate screen. The Cards are then linked together by objects, so that when you click on an object, it can take you to another card. So, each program may contain several Cards, which are collectively called Decks.

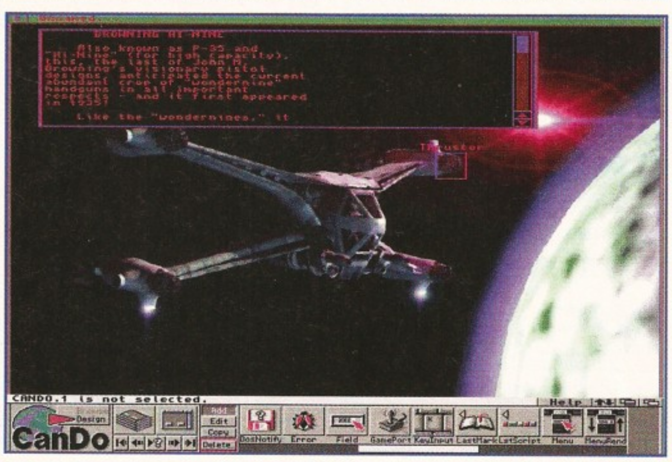
You are probably wondering, "do I have to run CanDo each time I want to run my application?". The answer is no. CanDo offers two alternatives. The first is to save your deck and then double-click on its icon. This loads it into a program called Deckrunner which, unsurprisingly, runs your Decks. The second alternative is to use another program called Binder. This, er… binds the Deck, which can then be run like any other program.

Due to the graphical nature of packages like CanDo, they are ideal for creating multimedia demonstrations and graphical programs. However, the scope of CanDo goes way beyond that – you can build almost any kind of application.

Of course, the more ambitious the program you are going to make is, in terms of functions, the closer you will come to real programming. So, if you're going to make a relational database, you'll need an understanding of variables and so on.



The bottom half of the screen shows CanDo's window editor in action. The windows you create can have background image, or even special video titling-like effects added to them.



This is CanDo's toolbar. You can access all of the program's object editors. Version 3.0 now has so many editors that you'll have to scroll along the bar to get to all of them.

Tools of the trade

In many ways CanDo behaves more like a paint package than a programming language. Most of the tools you need can be found, as with most paint packages, on a toolbar. But instead of painting tools, like paint brushes or line tools, there are object editors. These can be used to add, delete or edit a variety of object types.

The objects can be almost anything from a simple button that executes a script when clicked on, to sound or a text file. Giving a description of what these object editors do gives you an idea of some of the program's abilities. However, before I go on to do that, let me first explain the different operating modes of CanDo. There are two modes – the Browse mode and the Design mode. As you might expect, the Design mode is used when you are creating an application. The Browse mode enables you to try out the objects, or entire Decks, to see if they behave in the way you intended.

The first Object editor, Align Object, is a new tool. Its function is to help you with positioning your objects. Clicking on this tool's icon gives you access to several methods of positioning your objects. You can use the Nudger, which works by moving an object one pixel in any direction. You can also use one of the object centring buttons, which moves the selected object to the centre of your

window. The remaining options alter the size and alignment of selected objects.

The next icon along the toolbar is for the program's ARexx features. This is pretty cool, as you can use this excellent feature of the Amiga's Operating System to communicate and control any program with an ARexx port. You can create an object that instructs another program to perform a task, or you can have it listen out for a particular event. This is a great feature with lots of potential. For example, it wouldn't be too difficult to create a batch processor, along the lines of Pro Control, for your favourite image processor.

Bookmark is another nifty tool. Using this function, you can keep a listing of your favourite scripts, which CanDo "remembers".

BrushAnim can be used to load and play animbrushes, as produced by animation packages such as DPaint or Brilliance. It can also execute a script at the end of an animation, or on every frame.

When you're in the middle of creating a huge application or presentation it can be all too easy to lose track of the files that have been used. This is when the BufferManager comes in handy – it can be used to keep track of the buffers (such as pictures and samples) in the current deck. It can also save buffers or flush them.

Next along the line is the Button editor – at last a familiar button from the earlier versions! Well, not quite, it still places a button object on screen, but it has several new features. A Button is an object which acts just like a button! – click on it and something happens. However a Button doesn't have to be button-shaped, because you can load an image to act as a template for the Button's active area, as well as its colour.

The execution of scripts can also be linked to the removal or insertion of a disk by using the disk tool. On a related subject, DOSNotify is a feature that executes a script when it has been alerted to a change in a directory such as a new file.

The Document feature enables you to add text files or text window to a card. These can be set to view only, or can be made editable so that the user can make entries when the Deck is active.

Another good feature is the GamePort. Using this, you can make your applications respond to input from the joystick and mouse ports. Similarly, the KeyInput tool makes your applications respond to keyboard activity.

If you are working on a serious application, sooner or later you are going to need Menus to give the user easy access to your program's features. CanDo's Menu editor can be used to create menus, menu items and sub-menu items. You can even add keyboard short-cuts. A related editor is MenuRender, which executes a script before or after displaying a menu.



By using CanDo 3's Gameport, you can instruct your applications and demonstrations to act on feedback from joysticks and mice.

As well as operating in a paint package-like manner, CanDo 3 also has its own selection of painting tools to enable you to draw simple images or diagrams.



New features in version 3.0

Commands: There are simply loads of new commands – too many to mention here.

Editors: There are seven new editor tools – ARexx, Buffers, Effects (brush), Effects (Palette), Librarian, Objects (several changes) and the Variable Browser.

Script Editor: The Script Editor has undergone some enhancements. It has a calculator, a help menu and the Lexicon Assistant.

Aside from these new features, the program's overall interface and major features have been fine-tuned.

As mentioned briefly earlier, CanDo can play back sounds. However, it can also execute scripts when the replaying of a sound has finished. You can load IFF samples into memory and then play them back at the press of a key or button.

The next tool, Text, works in almost exactly the same way as its paint package counterpart. It can be used to produce non-editable text displays. You are given control over the choice of font, its colour and its styling.

The Timer tool is another useful feature. It executes a script after a set period of time. You can also choose between a "oneshot" timer and a recurring one. You can even set a timer that goes off at the same time every day.

If you are working on a complicated program, then you'll appreciate how easy it is to become confused over which variables have been used and where. The VariableManager can help to keep the variables used in the current Deck – it can also remove or save them.

Feel the power

I have left the most powerful of CanDo's features to last – namely the Script Editor. This is the place where all the nitty-gritty programming-like stuff goes on. Well, actually, it's all pretty painless, thanks to some very handy tools. Despite this distinct lack of difficulty, it is possible to perform some powerful tasks.

In many ways it's like using a high-level language like Blitz BASIC or AMOS, as the commands are very BASIC-like. For example, you can load a text file by using the Load Text command – dead easy. While you are within the Script Editor you still have access to most of the tools from the toolbar, plus a few others.

The Editor's tools are all present in the form of icons along the side of the screen. They generally use requesters to find the files or routines that are going to be implemented. Once you have made your selection, the tools insert the necessary lines of code.

The Script Editor also checks any lines of code you may have typed and gives you a warning if they are incorrect. If you want to debug your scripts fully, you will have to shell out another £100 for a separate package. However, you get a mini paint package free. While this paint package is unlikely to cause the makers of DPaint or Brilliance any concern, it can still be used to create basic images. Your images can then be inserted into the current Deck.

Well, that's some of the program's features. There are others and some nice little touches that make using CanDo that much more pleasurable, such as full AGA-support and video and animation effects that can be applied to brushes or windows. I must say I was quite pleased with the number of features available and their power. I would say that this has got to be one of the most powerful and easy-to-use authoring packages available. It really *is* possible to create proper applications, as well as multimedia presentations.

However, while this is a powerful package, it is one that is better suited to the power-user. It is easy to use, compared with most programming languages, but not as easy to use as Helm. However it is not far off from that level of usability. If you are looking for a program that enables you to produce both multimedia and other applications easily, then CanDo is an ideal choice.

Right, I'm all set up for giving this product an Amiga Shopper Star Buy award... but I've just found out the price – £169! This is too much. Despite the fact that it's a powerful tool, I just can't convince myself to part with all that. ■

CanDo 3

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Verdict: 82%

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Blizzard 3



It goes in without any fuss and is ridiculously fast... the Blizzard III, that is.

You can always do with a little bit of extra speed as **Graeme Sandiford** *well knows.*

No matter what you use your computer for, you can always do with a little bit of extra speed. Whether you just want the global 'find and replace' of your favourite word processor to be quicker, or if you want your raytraced images to render in an afternoon instead of a weekend, everyone could benefit from a faster machine. It's one of the pillars of the computing industry that forces all of us to fork out wads of money and ditch out-dated and now useless hardware every few months.

It's a trap that few of us can escape. Woe betide anyone who unwittingly uses a new piece of hardware at a computer show. After getting home, you may not think about it again for the rest of the day, the week, or even the month, but you will eventually. You won't even notice the insidious change in status from a desirable item to a necessary one. In the end, you'll start to reason pseudo-logically – if you only ate every other day for the next three months you could afford it and who needs two kidneys anyway?

The Blizzard 1230 is on the most-wanted list of every A1200-owner and for one reason only – it's brutally fast. If it was a car, the police would be complaining about it being made available to the general public. We'll be looking at the Blizzard III in this review, but you may remember its predecessor, the Blizzard II, from our A1200 expansions Supertest in issue 42 (see page 82 for back issues if you missed this issue) where it just missed out on first place because of its price.

28-inch waist

About two years ago, just after I started working at Future, I could fit into a 28-inch waist pair of jeans – I wouldn't to try it now though! Fitting an A1200 expansion is a similar, daunting task. You can be sure that it will take a great deal of physical effort, lots of panting and puffing and, if you do get it to fit, there will be an unsightly bulge.

A1200 expansions just never seem to fit easily, but this is one of the first areas of improvement that I noticed with the Blizzard 3. You don't have to summon all your energy and courage – it goes in without any fuss and bother. This is thanks to a new streamlined design – one that exudes quality and gives the impression that at least one of the designers has tried to insert one before.

Of course, looks alone don't make a good accelerator – it's power that counts most and the Blizzard III has a number of different configurations which offer several gradations of power. The lowest specified board has no RAM and a 40Mhz 68EC030 processor. The next basic board, again with no memory, runs on a full 68030 with an MMU at a speed of 50Mhz. To either of these two basic configurations you can add 25, 33, or 50Mhz 68882 FPU.

The cheapest set-up, the naked 68EC030 board, will set you back £189 and the highest spec costs around £349 plus RAM. A SCSI2 interface is still in the works too. For information of the board's performance in comparison with other systems take a look at the benchmark table.

If these specifications sound familiar, it's because they are the same as the mark II Blizzard. The actual performance of the board hasn't changed that much, but the mark III runs a lot cooler than II. When I tried out the mark II a while ago, the board heated up fairly quickly. This is true for most other boards too and is a testament to the quality of the board – besides it's nice not to have too many scorch marks on your desk. The Blizzard III also has one SIMM slot and is auto-configuring.

A lot of readers have been concerned about the expansion possibilities for the A1200. Several have heard rumours of conflicts between certain boards and the PCMCIA port. Apparently, several people have encountered problems after adding more than 4Mb of RAM. They have either found that the PCMCIA port has been cut off, or that the extra RAM has not been recognised. This is obviously a problem if you wish to have a machine with more than 4Mb of Fast RAM and a PCMCIA hard disk, or CD-ROM drive. The Blizzard III checks out fine in this respect – I've tested it with the Squirrel SCSI interface and a 16Mb SIMM without any conflicts.

All things considered, the Blizzard III is a mightily impressive piece of kit. It's not just the benchmark results either, you can feel the difference when you're using your machine. I'm reviewing this at home – away from the office A4000, but I can still feel that extra zip you get with a more powerful machine. Right from the mundane tasks, to seriously processor-hungry ones, you can feel the difference. However, the board is still hampered by a price that is just that little bit too high. ■

How fast?

To give you an idea of just how fast this Blizzard is, we used AIBB to perform a range of benchmarks. The results are a comparison of a standard A1200 with no Fast memory.

	Line	Writepixel	IMath	FMath
Blizzard:	1.10	2.93	4.70	5.11
A3000-25:	0.62	1.16	2.37	2.63
A4000-40:	1.09	5.11	6.43	9.42

Blizzard III Turbo

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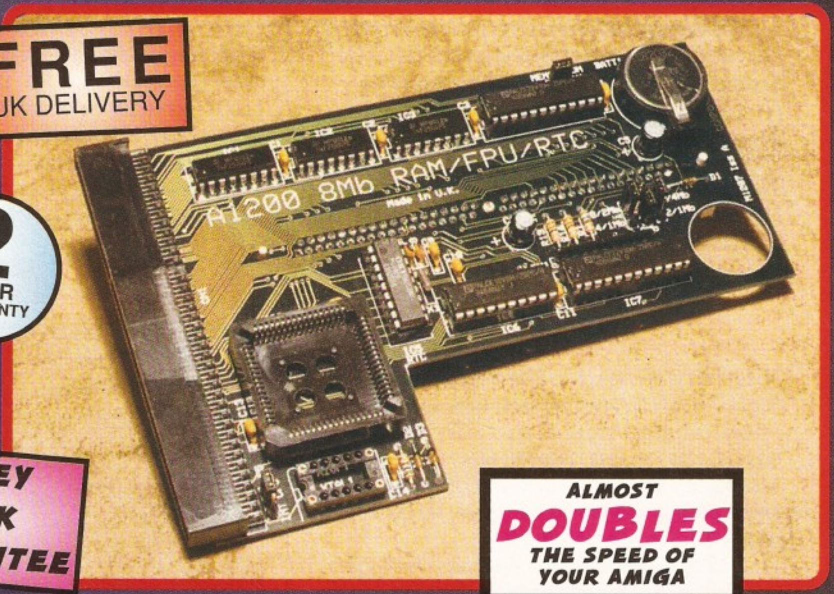
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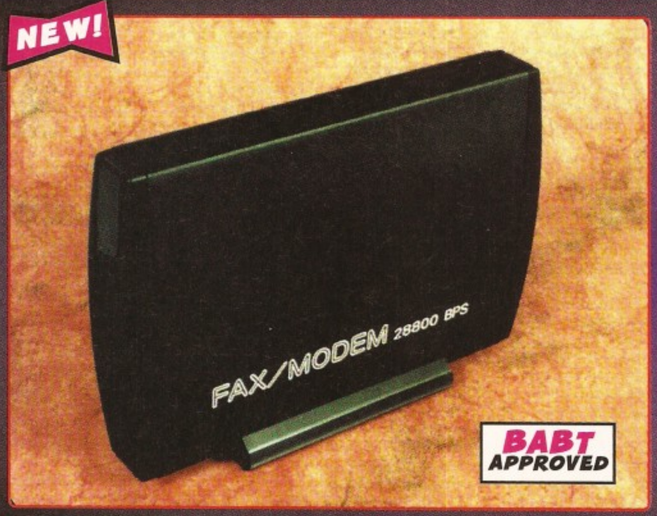
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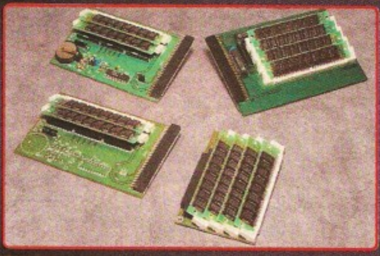
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● GVP G-Lock genlock, six months old. Bargain at £200. Call Martin on ☎ 01704 563359.

● Philips CM8833 MK2 colour monitor £180. X-Cad 3000 with manual £90. ☎ 0121 554 7915.

● CD-ROM drive Zappo inc. All software £150 or swap for best Commodore monitor, must be A1200 compatable. Olivetti InkJet printer, good working order with spare ink cartridges £130 ono. ☎ 0161 430 4731.

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● A1200 with 60Mb hard drive and Blizzard 1220/4 Turbo expansion, good condition, £550, some software. Phone ☎ 01908 504 650.

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- Supra V32 fax modem, 14400 baud with Comms and fax software for all Amigas: £100. Tel. Keith Miles ☎ 01223 213 704.
- Mags: Amiga Shopper 1-47, Amiga Format 8-68, Amiga Computing 3-82, including subscriber and Coverdisks. Open to offers. Phone Rob ☎ 01734 426522.
- Power Computing 1204 4Mb RAM £100. Wordworth 2.0 £15. Wordworth 3.1SE, unregistered, sealed box £30. Videotronics MXI mixer £1,300. KRP ES20 edit controller £200. ☎ 01273 890 615.
- Deluxe Paint 3 plus 4 upgrade £20. Strider and Pac-Mania £8. Protext version 6.5 (Amiga) £30. Protext version 6.5 (IBM) £15. TV Text and TV Show Font £30. Tel ☎ 01706 622135.
- A4000/40 14Mb, 210MbHD, 1960 monitor, SCSI card, Toshiba CD-ROM drive, software including DirOpus, Imagine3.0, Scala, SAS/C6.3, VistaPro3.0, 18 CD's. Lots of games. manuals, books. £2,000. Phone Simon Walker ☎ 0181 424 7520.

Wanted

- ProPage4.1. Anyone have discs/manual for sale, dealer with old copy on shelf? ☎ 01993 776234.
- SCSI 2 interface for A4000. Prefer Fastline Z3, but would consider others. Fair price paid. Phone ☎ 01263 722169. Ask for Richard.
- Manual for A600 wanted. Will pay cost and postage. ☎ 0141 884 3934.
- CD-ROM drive wanted (A1200). Write to: Hamid Taqui, House SS, Room 33, Castle Irwell, Cromwell Road, Salford, Lancs M6 6DB. Please include phone no. Will pay good price.
- Anybody who owns a Picasso 24-bit board. I need some info. Really urgent. Please call Gavin on ☎ 01723 353136.
- Users wanted for new NFA BBS. Call ☎ 01162 661 610 or Node 2 on ☎ 01162 375 147 or Node 3 on ☎ 01162 461 665. All speeds welcome 8pm–8am.
- I have recently started my own PD company and am looking for customers. Send first class stamp for free list to PD+, 1 Wesley St, Bodedern, Anglesey, Gwynedd LL65 3TD.
- Wanted Hawk 2Mb RAM expansion plus co-processor for A1200. Vincent Dimech 7/3 St. Michael Street, Senglea, Malta. Call ☎ 690105
- IMB or 2Mb 32-bit 72-pin SIMMS. (Not GVP type). Call ☎ 01635 866669 after 7pm.
- Multisync colour stereo monitor for A1200. Must display ALL modes, including Lo-Res games. Also Understanding Imagine 2.0 book. Also 4Mb 72-pin 32-bit SIMM for Microbotics expansion. Call Darren anytime ☎ 01792 361 902.
- A4000 68040 processor card. Will pay around £200. Can include 68030 board with 68882 FPU in with cash if required. Phone ☎ 01263 514806. After 5pm. Ask for Kris.
- CDTV add-ons, memory, hard drive, Trackball, Joystick Interface, Infra-red mouse, also Hardcard/drive/memory for 2000 2.0 ROM and Swapper, GVP hard drive for 500 contacts also wanted C64 and Amiga. Tel ☎ 01705 833 943.
- I will swap IM.30 with manual and Sculpt 4D. With same for Aladdin 4D, must be as bought. Telephone Mac ☎ 01469 576487 after 4.30 or work ☎ 01469 577088.
- GVP HD8+ or A530 for the A500+. Can pay between £140 to £200. Call ☎ 0260 227630 (North West) only call from 5pm to 6pm weekdays.
- A4000 – anything considered. Phone ☎ 01926 612848.
- Supra 28Mhz accelerator for Amiga 500+ with or without 2Mb RAM or would take 2Mb RAM expansion to fit A570 CD-ROM drive. Money waiting. Call ☎ 01294 272768.
- Serious Amiga contacts/users in Brentwood Essex and surrounding areas. Share ideas/tips – DTV, DTP, WP, graphics, tec. No gamers. Write to David Plumley, 172 Woodman Road, Brentwood, Essex CM14 5AL.
- PCMCA 4Mb card to fit A600 or A1200. Call ☎ 01709 542670 (Rotherham area).
- A600 insider guide. Send details and price to Mike, 28 St. Michaels Road, Ashford, Middlesex TW15 2DP.
- Amiga PD/wares swappers wanted to swap 1992 PD/wares upwards. Write to: John White, 23 Kellett Road, Brixton, London SW2 1DX.
- Hard drive for A500+ or GVP A530 Combo in good condition please. Cash waiting. Call Dumfries ☎ 0146140475 (Scotland).
- A1200 keyboard membrane wanted. Dropped your baby? Broken it to pieces? Don't despair, I'll give yer 25 quid-ish. A1200 keyboard wanted. Call ☎ 0121 3587169 W. Mids.
- **Line** out transformer for Commodore 10845-0 monitor manufactured 1990 or will sell monitor for spares. Call ☎ 01677 422678.
- **A3000** wanted with or without monitor. Up to £500 cash paid. Please phone ☎ 01543 503490 (Midlands).
- **A500+** external hard drive wanted with at least 50Mb capacity. Also required a flicker fixer for A1500. Please phone ☎ 0161 4409796 after 7pm Monday to Friday.
- A3000/3000T with 4Mb RAM or more & 120Mb HD or more. ☎ 01703 403 022.
- Amiga A1000 wanted. Must be in good working order. Phone Jason on ☎ 01225 442244 (extension 2338). Good price paid.
- Imagine 2.0 reference book wanted Understanding Imagine by Steven Worley. ☎ 01723 378 406.
- Amiga 3000 25Mhz – must have at least 4Mb RAM, 100Mb HD. Multi sync monitor. Call Nick ☎ 01462 456 721.
- GVP 4Mb 32-bit SIMMS, also Quarterback manual V6, or details of use with TapeStreamer. Dog destroyed my copy. I am buying Streamer and want operating instructions. Advice: George Aldridge ☎ 01573 224 632.
- A1200 with monitor – I am willing to swap for an A500 1Mb Workbench 1.3.2 and accessories. Willing to pay reasonable price for swap. Call James every day except Sundays. No games needed. ☎ 01525 240 673.
- Has anyone got a A5000 accelerator working with a A500+ and A590 hard drive? If so, please tell me how. Write to M. Heath, 14 Kitchener Street, Swindon, Wilts SN2 1EZ.
- Flicker Fixer for A1500 or A200. Microway of ICD etc. Reasonable price paid. Contact Mick, 27 John Clare Court, Kettering, Northants NN16 9UJ.
- Accelerator or hard card for Amiga 1500/200. Extra memory also. Must be perfect, fair price. Please ☎ 01272 620 176.
- Complete C package for Amiga 1200 must be a full package which includes etc. Anything considered but limited funds – Phone Darren on ☎ 01440 61925.
- Wanted: any amateur radio software, especially Morse Tutor, that will run on 500+. Also required for pensioner, Miracle Piano as cheaply as possible ☎ 01244 831553 evenings or w/e.
- SCSI/I/Fs w/uty for A1000 and ST. Sell or swap for useful X680X0. Seisei Yamaguchi, 1-768 Shirotsuchi, Togo-cho, Aichi-ken 47–01 Japan. PS programmers and gamers circle. Please join me.
- 4Mb GVP SIMM-32 for A530 or A1230. Will pay £105. ☎ 01292 570373.
- Flicker Fixer for A1500 or A2000. Microway or ICD etc. Reasonable price paid. Contact: Mick, 27 John Clare Court, Kettering, Northants NN16 9NJ. Money waiting.
- Flicker Fixer wanted for A2000, will pay reasonable price for good condition. Contact Mick, 27 John Clare Clourt, Brambleside, Kettering, Northants NN16 9UJ.

Personal

- Will pay scanner owner to turn B/W line drawing into files to use A1200 (IFF) in DTP/art progs. Tel ☎ 0115 9780202.
- Graphic artists require programmer/s for producing PD/shareware games. Can work from home or with us. Interested, contact James Becker at Cellar 4. Call ☎ 01933 56368.
- Graphic artist Lightwave or equivalent and programmers. Call ☎ 0181 5904572. Production of game software. Newly formed group.
- A lonely Amiga is looking for Amiga friends, so please write soon. Contact Aaron Wardle, 52 Rancliffe Crescent, Braunstone, Leicester LE3 1NQ.
- PD swappers wanted, British or otherwise. I have a large collection. Please send me your list and I will send mine. Write to Paul Wheeler, 10 Fairfield Road, Staithes, Saltburn, Cleveland TS13 5BA, England.
- The NBS BBS (Ex Amiga Buzz) is now back online. Tel ☎ 01924 491 461 :)
- Enthusiastic, recently self-taught programmer, wants to get into games programming on the Amiga, would like to meet enthusiastic artist who enjoys creating computer graphics. Call Sterling ☎ 0181 677 3110.
- PD swappers wanted. Mail me your list and I will contact you back, speed and number of disks not important. Contact Johnny, Ljunggren, Marveien 2, 3/60 Stokke, Norway.
- Buy with confidence as hardware serviced professionally before advertising. A500 plus 2Mb high power PSU GVP, HD8, 52Mb HD Cumana FDD Workstation extras £320. Boxed, original S/W manuals. Call George ☎ 01573 224 632.
- Graphic artist with experience in game design and animation needed by established programmer. Must be up to commercial standard and willing to work 110 per cent. Contract is available. Call ☎ 01370 356185.
- Graphic artist wanted, write to Willowside, Holly Road, Uttoxeter, Staffs ST14 7NA. Also looking for musician.
- Astronomy diskzine needs pictures/articles, free diskzone for contributions used. Send with S.A.E. to Wolfpack, 7D Ferrier Crescent, Woodside, Aberdeen AB2 2QL.
- **Artists,** programmers, musicians wanted for contacts. Urgent – 1,000% reply guaranteed. Easby House, Front Street, Appleton, Wiske, Northallerton, North Yorkshire DI6 2AD. ☎ 01609 881609, ask for Jason.
- **Obsessed** artist seeks obsessed programmer to team up to produce obsessive games. Manchester ☎ 0161 3379601. ■

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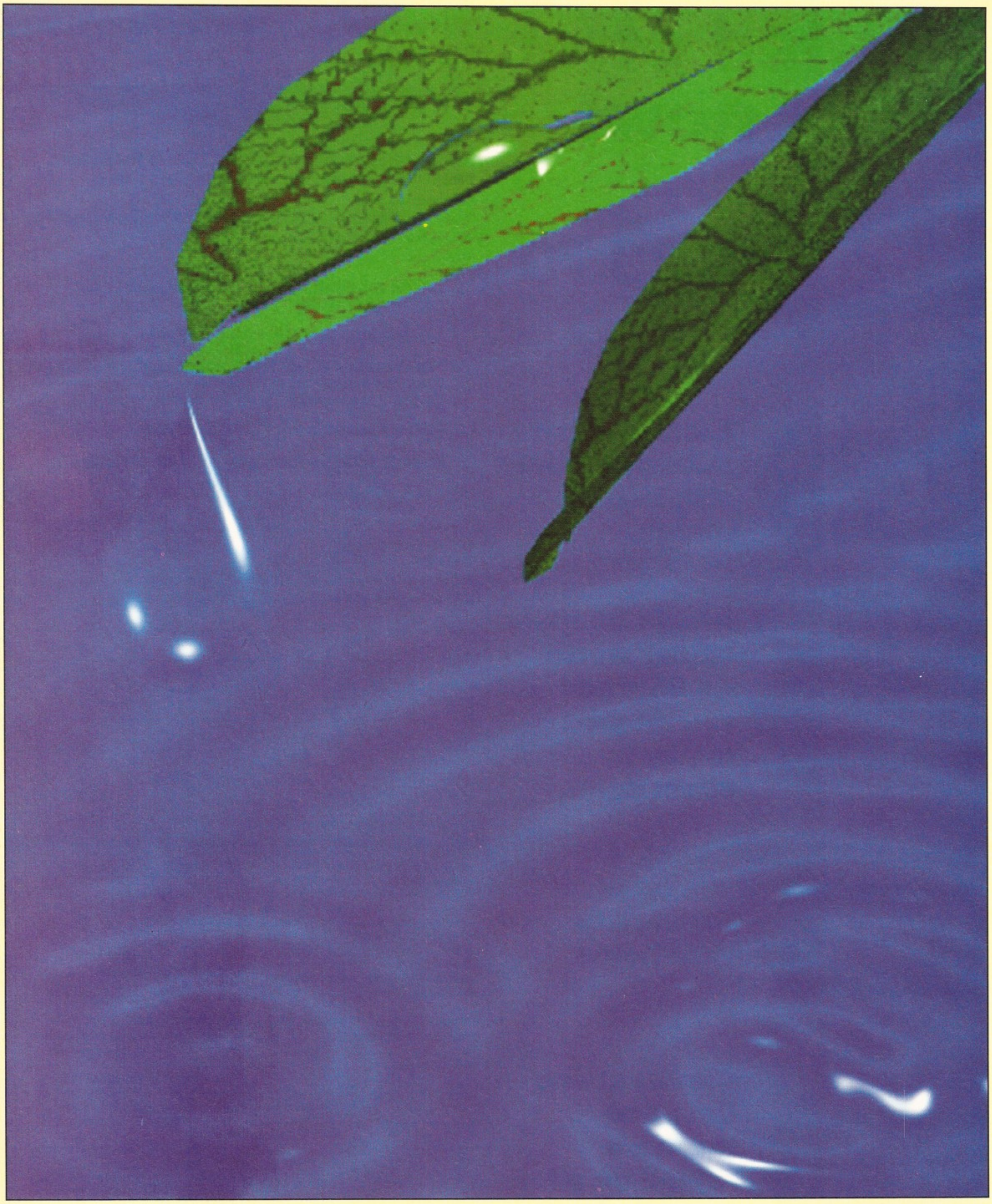
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And this month's winner is CPL G Moffat stationed at B.M.H. Rinteln. Both I and our Art Editor liked the image's simplicity and clarity. It was produced on an A4000 with 10Mb of RAM and LightWave. If you want to win £25 worth of stuff, just render or draw a picture, save it as a JPEG and send it to me: **Graeme Sandiford, Future Publishing, 30 Monmouth St, Bath BA1 2BW.**

AMIGA ANSWERS



Hello, and welcome once again, to the area of Amiga Shopper where you can turn to find all the answers to questions concerning your Amiga. It's my privilege to make sure that not one of your problems is left unsolved. Let me present this month's team of Amiga experts. Toby Simpson is our expert code clinician. Gary Whiteley is an expert on video applications and graphics. Larry Hickmott is a new member of the gang and a word processing expert. Finally, we've got a man you can rely on when it comes to operating systems programming and music making on your Amiga – Paul Overaa. Relax, your problems will be taken care of.

Answers contents

If you are looking for a solution to a particular problem, why not try using this handy index to the questions in this issue. It's arranged by topic, so if you are being kept awake at night by a noisy hard drive, then be on the look-out for any mention of hard disks.

Tandem controllers

Hardware

I own an A4000/030 and am thinking of buying an internal CD drive for it. As far as controllers go, one supplier has told me that a Tandem card would be best, whilst another told me that they don't stock the Tandem card because it is unreliable. What would you suggest, bearing in mind that I have a budget of between £200 and £275?

A. Ferris
Newquay, Cornwall

Not all retailers are tarred with the same brush as I'm sure you realise. Nevertheless, it is quite uncanny how often you find that the product most suited to your needs is the one that they just happen to currently have in stock. I also am at a loss to remember when I heard any supplier ever say anything good about a competitor's alternative product. You've guessed it – in my opinion, the moral is to take everything that any retailer/supplier tells you with a pinch of salt until you've had it confirmed by other sources.

I've not heard of any reliability problems with the Tandem card, although I do believe the early versions had some boot-related drive restrictions that have now been eliminated. The Tandem card, which has a Mitsumi CD-ROM drive interface, is, of course, relatively new and, in that sense, still something of an unknown quantity.

Since your budget is too low to follow an alternative SCSI-related pathway I'm afraid that the bottom line is that you are left with a choice between the 'devil no-one really yet knows', or no devil at all. I'd be inclined to go with the Tandem, but, at the end of the day, the choice is yours! **Paul**

Install problems

Software

I would like to know how to get Wordworth 3.1 to run from my hard drive. I purchased this program from Digita International at the World Of Amiga Show at Wembley last December. Since then I have had problems installing Wordworth 3.1 on my hard drive. As I am subscriber to Amiga Shopper, I wonder if you can give me any guidance on how to overcome the problem. My set-up does allow me to run Wordworth from floppy disk.

PJ Patmore
Milton Keynes, Buckinghamshire

Two possible problems are apparent here. One is that Wordworth 3.1 is not installed correctly on to your hard drive and the second is that Workbench on your hard drive needs to be re-installed. The fact that Wordworth 3.1 runs from floppy disk means that both it and your A500 Plus are okay.

A lack of memory doesn't appear to be a problem with 4Mb being plenty for a program like Wordworth 3.1. Before doing anything, I would first take a look at re-installing both Workbench and Wordworth 3.1. Start off by installing Workbench again. This will help refresh your system in case some important files like libraries have been over written.

This is easily done these days with many pieces of software, especially from the PD, having installation scripts that copy their Workbench files over the top of those on your hard disk. These 'new' Workbench files may be from an Amiga using a different version of Workbench and therefore could be incompatible in some way to your version of Workbench. The key is to keep an eye on the software you install on to your hard drive and update Workbench regularly.

A word of warning before you reinstall Workbench. To safeguard files like your User-startup sequence and so on from being overwritten when reinstalling Workbench, copy

▶ 6

63 ▶ *the current files in danger of being overwritten to a floppy disk or a temporary directory on your hard drive. These files will probably contain important assign commands for other programs on your hard disk and losing them may cause problems with these programs. So, always play safe and back up. If they are needed, you can then copy them back to the S directory when Workbench has been re-installed.*

Another tip you may find useful is once Workbench has been re-installed, try backing it up to another partition on your hard drive. If you're short of space, use a program like Lha to crunch it, so it takes up less room on your hard drive. Then when you need to refresh your system, you can use the back up already on your hard drive.

Once Workbench has been taken care of, try installing Wordworth 3.1 and after it's been installed, avoid the temptation to delete the odd file here and there to make room on your hard disk. Missing files is one of the biggest causes of problems on any computer and you should only delete a program's support files providing you know 100 per cent that this action won't affect the normal running of the application. **Larry**

A few questions...

Coding

Having just bought an Amiga 4000/030, I am increasingly becoming frustrated when trying to write any applications in C. My main problem being the lack of ROM Kernel Manuals for Workbench 3. So, could you please answer a few of my questions.

1. Why, with the Amiga's superior graphics capabilities, isn't it possible for the machine to produce any SVGA screen modes (1,024x768) without any screen flicker?

2. How do I put scroll bars with a pair of arrow gadgets to move up and down them in a window's right and bottom border using GadTools Library? The RKM basically says that this is not possible because GadTools does not support relative positioning. The only other way I know is to create the gadgets manually. I would also like the gadgets to have the Workbench 3.0 look. I noticed that the arrow gadgets in SAS/C 6.3 use the same as the ones in Workbench. I thought this may be by using BOOPSI? Am I along the right lines?

3. Is it worth phoning CBM about the availability of the RKMs for Workbench 3?

4. Have you ever heard of Linux? This is a piece of shareware which turns the PC into a UNIX machine with X-Windows. Is there anything similar for the Amiga?

Graham Allwood
Knaresborough

1. The Amiga's graphics hardware may not be as amazing as you think. Bear in mind it dates from the mid 80s and has only had a couple of major overhauls. The Amiga graphics hardware surpasses the PC when it comes to special video effects. Let's hope that a future Amiga will address these issues.

2. Nasty one. You cannot do this with GadTools, but the good news is that you're right: It can indeed be done using BOOPSI stuff. Have a look at next month's C programming FAQ for a listing which solves this problem.

3. No. Be patient with this one and at the same time cross your fingers that the UK management buy-out of CBM succeeds. If it does, rest assured that a "bridging" document covering the differences from 2.04 to 3.0 will be made available to developers and hopefully to everyone in the form of a new RKM book.

4. Yes. I have heard of Linux and, amazingly, it is available on the Amiga also. I asked Gordon Hundley, who works at CIX in London about this and he came up with the following extremely descriptive answer about Unix on the Amiga...

Unix on the Amiga

There are basically four usable systems: Commodore Amix v2.0, Prentice Hall Minix, Linux and NetBSD. The first two are commercial products, though Amix has been deleted. The latter two are freeware.

***Amix:** Requires very standard hardware: A3000UX or A2500UX or A2000 with 2420UX board. Comes only on QIC 150 tape. Slow, some of the major system utilities are only partially implemented. No colour, no custom chip support. Plus points are that it was industry-standard SVR4 Unix before virtually anybody else had a version. This is now only available second hand.*

***Minix:** Floppy installed Unix-like OS. Supplied with complete source code and the Minix book by world-respected software guru Andrew Tannenbaum. It's designed as a teaching OS and it shows. Again, there is poor driver support, so it tends to be fussy about what hardware you can use. You may get newer drivers from fan clubs/support BBSs, but Minix never got the attention it deserved on the Amiga and is fairly unknown now that full Unix type systems are freely available.*

***Linux:** Linus Torvald's kernel, hacked and bashed to work on 680x0 machines. Runs on anything with an MMU and might even support the hardware. Presently, your best bet is an A3000, with an A4000/40 in second place. People who need big screens should really look at the Retina board, since the drivers for this are present and stable. This is available using FTP at ftp.cdrom.com:/pub/linux/tsx-11/680x0.*

***NetBSD:** The famous Berkeley Systems Distribution of Unix, ported to 680x0 machines. Again, MMU required, fair to good range of hardware support.*

If you have to have System V (the real Unix) then you'll have to accept the limitations of the now unsupported and undeveloped Amix. If you want something similar, with great support, lots of friendly enthusiasts and more free software than you can shake a Habbish at, you should consider Linux. NetBSD is another option if you're a fan of the BSD4.3 type of Unix, as home grown by Californian students."

Thank you to Gordon for this one! **Toby**

Jargon

Lha: **This is a shareware program by Stefan Boberg that is used extensively by computer users both on Amigas and PCs. You can even get a version for the Macintosh. Without getting too technical, it simply takes a file and makes its file size smaller so it takes up less space on your storage device like a hard disk for example. When it does this, it creates what is known as an archive. To make use of the file again, whether it be a data file or an application, you will need to extract it from the archive, so it's back to the way it was before being crunched.**

PD disk problems

Beginners

My problem is how to get Public Domain disks up and running. I'm new to computers and cannot find any reference to terms like install, directory, libs, subdirectory etc.?

J. Fowler
Chacewater, Cornwall

The bad news is that there is no simple answer as to how to get PD disks running because the things that need to be done can, and usually do, vary enormously from disk to disk. In simple cases the disk will contain a program that can be run by double-clicking on its icon. On other occasions, if the program is a so-called Shell-based utility, you may need to open a Shell window and type the program's name.

Sometimes the program may require additional support files in order to run – it may, for example, require a library of special functions. Such libraries, in all probability, will be provided on the disk in a disk compartment (i.e. a drawer or directory) called libs. However, having this library on the PD disk is not enough – either your Amiga needs to be told how to find the library, or the library file has to be placed in the system directory that your Amiga always searches when checking for libraries.

Luckily, your Amiga, when looking for libraries, always looks in a disk directory that has been assigned to an AmigaDOS system name called 'libs:' When your Amiga starts up it normally assigns this name to the directory called libs present in your Workbench. Any required libraries therefore need to be copied to your libs directory before the program can run. Sometimes you may need to do this by opening a Shell window and using a copy command like...

```
copy df0:libs/some_library_name to
libs:some_library_name
```

Occasionally, however, other files may also need to be copied and normally all this will be explained either in a text file that is on the disk, or it will be done automatically using an 'installer' script which will also be on the disk in question. An installer incidentally is just a short program that copies all the required files needed by a program from the PD disk to their right locations (e.g. your hard disk). Nowadays, these sorts of installations are a piece of cake – you just double-click on the appropriate install icon and follow the on-screen instructions.

On other occasions, it may be necessary to tell the program where particular files can be found and this will most likely be done using an 'assign' statement. For example, the instructions in the disk's readme files might say that the ▶ 67

D-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD



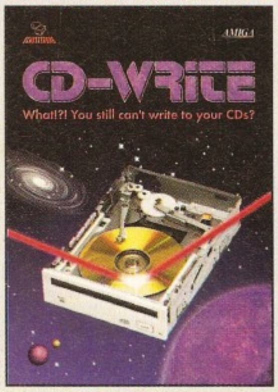
Aminet 5

Aminet CD 5, dated March 1995, consists of approximately 1,1 gigabytes of software in 3600 archives. Since the release of Aminet CD 4 more than 448 MB new software has appeared, since the release of the Aminet Set 1 214 MB new software has appeared. The current edition has a special focus on games, more than 1000 games from Aminet were included. User friendly access software make the Aminet CD 5 a pleasure to use. £14.95



Aminet Set 1

Aminet is the world´s largest collection of freely distributable Amiga software. Up to 10.000 users access the vast archives ervery day and countless programmers publish directly via Aminet. Until recently access to Aminet was restricted to international network users. With Aminet Set 1, consisting of 4 CDs, the complete archive is published the first time. This CD-ROM-collection, which is dated January 1995, offers an almost inexhaustible reservoir of top-value Shareware. A wide variety of programs is included: Applications, Games, Demos, Pictures, Mods, Animations, Developer-Material, ... It contains approximately 4 gigabytes of software in 12.500 archives and you will enjoy the comfortable user-interface. £29.95



CD-Write

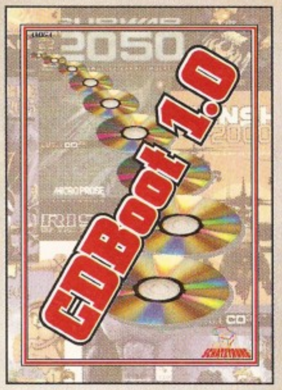
What!?! You still can't write to your CDs? CD-ROMs have long been an essential part of Amiga computing. Many users already own a CD-ROM drive, and the number of software packages available on CD is increasing steadily. Until now, though, it was not possible to write to CDs. We have solved this problem with our new revolutionary product: Ralph Babel and Stefan Ossowski's Schatztruhe are proud to present what can be considered a marvel of technology: CD-Write enables you to virtually write to CDs with an ordinary CD-ROM drive. From now on, you will be able to write, delete, and modify data on your CDs. This product will take you into a new era, and you will be able to utilize CD-ROM technology to its fullest. £44.95



FreshFish 8

The FreshFish CD-ROM-series, produced directly by Fred Fish, provides Amiga users with hundreds of megabytes of the latest freely redistributable software. Published approximately every two months, each volume is a two CD set containing new submissions since the latest volume, as well as an ever growing selection of tools, libraries, documentation and other useful material that is updated with every release. £29.95

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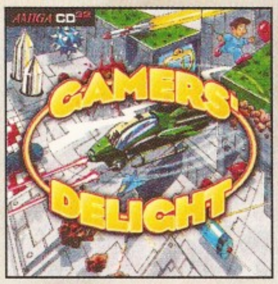
CDBoot 1.0

CDBoot is a fantastic new product that enables you to use almost any CD32 games on an A1200 or A4000 (with AT- or SCSI-CD-ROM drive and any filesystem). You can create a configuration file for each CD, containing information on the Joypad emulation. You can also save the highscore of each CD32 game. The usage and installation of CDBoot is very easy, also for beginners, due to the excellent English manual. Since the compatibility is very high, you can use 98% of CD32 games currently available. CDBoot is an excellent software solution for all Amiga-Freaks, who would like to enter the world of CD32 games! £34.95



FreshFonts II

The FreshFonts II CD-ROM contains 632 megabytes of fonts for almost any computer system. Most of the fonts are freely distributable, except for the Thienen fonts, which are exclusive on this CD. Each of these fonts is included in four different formats: DMF, Agfa IntelliFont, Adobe and TrueType. There are 231 font families on this CD (each containing of up to 8 different styles). They are classified in seven categories: Deco (63 families), Non-Latin (33 families), Pictures (16 families), Sans Serif (29 families), Script (36 families), Serif (36 families), Thienen (19 families). £19.95



Gamers' Delight

This CD contains 40 games for the Commodore Amiga from differing categories. Action, Jump & Run, Card Games, Puzzles, Strategy Games - a whole range of computer entertainment awaits! Gamers´ Delight will hold you captivated for hours and guarantees long-lasting pleasure. All games are commercial versions - no public domain & no demos! This CD can be run on any Amiga with CD-ROM drive, CDTV or Amiga CD32 Console with 1 MB free memory and Joystick/Joypad. £29.95



GoldFish 2

Volume 2 of the GoldFish series contains a selection of software, animations, pictures and other material released on FreshFish CD-ROM's between October 1993 and November 1994, with most of the material updated to the latest available versions. All material is included in both archived (BBS-ready) and unarchived (ready-to-run) forms. £29.95



LIGHT ROM

The LIGHT ROM CD contains almost 650 megabytes of 3D objects, images, images equences, scene files, surface attributes, bump maps and textures in IFF and TARGA formats, DEMs, and Lightwave related text files. LIGHT ROM is an invaluable resource for Lightwave users, and as a bonus, includes material for Sculpt 3D and Imagine users. £44.95



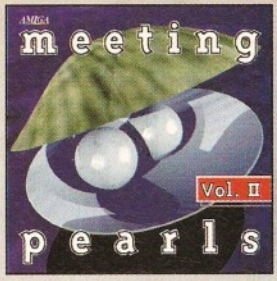
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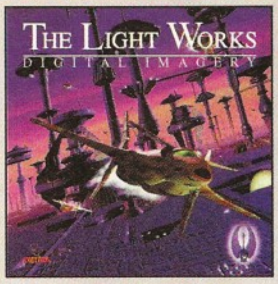
Meeting Pearls Vol. I

Meeting Pearls is the first CD to be published within the concept of „sharecompilation" and includes ca. 600 MB of top quality freeware. Most programmes are already installed or are easily installable on the hard drive via a comfortable script. The following programmes (amongst many others) are included: PasTex (latest version including 600dpi and Fax fonts), NetBSD (archived), more than 100 top-quality fractals, photographs of many Amiga personalities, several hundred installed programmes, many HTML-pages, CD index lists, FAQs, etc ... There are many software packages on this CD-ROM that are defined to be shareware. The acquisition of this CD does not include any fees or donations that might be necessary. We ask you to send the requested amount (see respective documentation) to the particular author if you use these packages frequently. £9.95



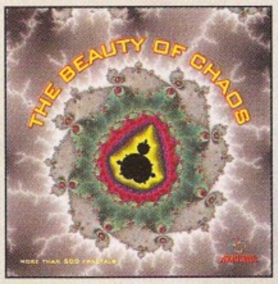
Meeting Pearls Vol. II

The Meeting Pearls Volume II contains 650 MB of the finest FD software via a special user interface, which has been created to allow you to find the program of your choice with ease. The contents: 35 MB of selected html-pages - 50 MB graphics programs and data -15 MB games - 10 MB from "The Party '94" - 13 MB disk, hard disk - CD-ROM and SCSI tools - 19 MB various other tools - 11 MB educational software - 25 MB terminal programs - 25 MB animations, mainly from Eric Schwarz - 40 MB developer tools (e.g. pre-installed compiler (DICE, Oberon, Modula), Commodore-Includes, GUI-Tools) - 9 MB music programs - 10 MB midi programs - 27 MB pictures - 60 MB texts, FAQs, CD contents files, etc. - 40 MB linux for Amiga - 100 MB TeX installation (PasTeX incl. 600 dpi and fax fonts) - 38 MB movie data base - 50 MB archives for Psion - 18 MB modules - 50 MB NetBSD for Amiga, ... £9.95



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Go figure

Sometimes I get letters which are far more confusing than others. Usually I can figure out what the reader is driving at but occasionally the going gets pretty tough.

Here's an example of such a letter! Whilst I think I might be able to answer it, would readers please note that if you want answers to your problems it would help to explain them as clearly and with as much detail, as possible.

If you can't fit it all on the form, continue on another sheet of paper.

Here are the questions, as I received them:

1. What is function = How to use symbols pictograms in Scala 1.3.

Ditto – Palettes. Message appears 'Not Enough Memory To Text This Picture' only shows small speck centre screen click see gives blank page.

Would be pleased to be able to use. Helpful gentleman at Trilogic unable to help.

2. How to save Scala screens to disk (DF0). No problem for video as can record direct.

H. Broadbent
Bradford, W. Yorks

Please don't get cross with me for using your letter as an example, Mr Broadbent, but I suppose that now you've read it back you can see that it doesn't make too much sense!

More explanation of the kind of image you are trying to use (such as its size and number of colours) would have helped tremendously, as would some idea of just what it is you mean in your first question.

Now, let's see what I can do for you.

So far as your second question is concerned, I had to step back in time, unearth my copy of Scala 1.3 (actually I found version 1.1, but I think that it will answer your questions). To save a Scala screen to DF0: you need to use the Save button at the lower right of Scala's screen editing menu. Once you've selected this you'll get more choices.

The one you require is SaveIFF, which when activated will bring up a directory requester asking where to save the current screen to. If you already have a disk in DF0: you should see an entry for it on the left of the large box. Click on the DF0: name and the "Disk>" name at the top of the requester should change. Enter the name which you would like to call the picture to the right of "File>" and press return. The picture should then save to DF0:

How are we to unravel your first question though? Pictograms (also known as Symbols) are just brushes. When you are editing a Scala page they can be added in a similar way to text. Use the Load button in the Edit menu, select Symbols, locate your Symbols or Pictograms or Brushes directory and load a symbol. It should appear on your screen. Symbols can have their colours and other attributes changed just as text can.

Palettes are used for globally changing the colour palette of your screen. Click on Palette, then Load, then find a palette you want to try (they should be in the Palette directory) and load it. All the colours of your screen image will probably change. Now you know what Palettes do!

I'm not sure why you get the error message, as with 6Mb you should have plenty of memory, but perhaps it's because you're trying to use an image format which this version of Scala can't handle, such as one of the AGA ones. Later versions of Scala can make use of AGA images, but your version was written before the A1200 or A4000 existed. Instead of using HAM-8 or 256-colour images try using 16-colour hi-res interlaced ones instead and see if the same error occurs. Otherwise I'm stumped on this one. **Gary**

64 ▶ *line... assign PPROGFILES: df0:PROGFILES needs to be typed at a Shell window before the program is run, or alternately that such a statement should be added to your startup sequence so that it gets executed automatically when you switch on your Amiga.*

As I say, it all depends on the particular PD disk in question. None of these things are difficult to do, but I suspect that being new to computers your biggest problem, at the moment, is coming to terms with the jargon. You need to read the manuals that came with your machine (particularly the Workbench manual) and not only get used to the various terms, but learn to do things like copying files, formatting disks, opening a Shell window and typing dir to obtain a directory listing and so on.

Don't worry, as long as you persevere, the jargon will start to make sense. A subdirectory, by the way, is just a directory (i.e. a drawer) that exists within another directory. **Paul**

Where art thou ProVector?

Buying

Are there any dealers in the UK selling a structured drawing program called ProVector 3? Could you please do a review of this program. Also, if I was to order ProVector 3 direct from the publisher, Stylus Incorporated, how much tax would I have to pay on top of its price?

Chong Hin Chee
Nottingham

I called around the country but no-one seems to know anything about ProVector 3. So I rang Stylus Incorporated in the United States and they informed me that ProVector 3 was imminent. This was in the middle of March, so I expect by the time you read this, the program will be available in the UK. With what company it is difficult to say because Stylus do not, at the time of writing, have a contract with a UK distributor, although Jeff Blume, Vice President of Stylus Incorporated, did tell me they were about to talk to several well-known UK companies.

As for a review, I'm sure Amiga Shopper will bring you news and details of ProVector 3 as soon as it's released but for now, I will give you a few teasers: ProVector 3 is going to be just one part of a package called the Stylus Pro-Pak. This will include ProVector 3, Stylus Tracer, RexxRequest and PSImport.

Concentrating on ProVector 3, Jeff Blume says it's had a thorough interface lift and now takes advantage of the latest Amiga technology as well as incorporating many suggestions from registered users. ProVector 3 will support the AGA chip set, have gradient fills and be able to warp, blend and skew objects. Text effects and text blocks will also be supported by version 3. Some of the exclusive features include multiple undos, structured and bitmapped pattern fills, page sizes up to 15 miles square and curiously it says, reliability.

The other utilities that will be bundled with ProVector 3 also sound interesting for the serious Amiga owner. The program PSImport for example, will, the press release states, enable you to load and edit PostScript files while Stylus Tracer includes a suite of image processing and touch up tools to prepare bitmaps for tracing.

As far as the price of the Pro Pack goes, it will be available at an introductory price of $US199.95. Registered ProVector 2.1 owners will be able to upgrade to the Stylus Pro-Pak for only $US99.95 and even those who are upgrading from a competing product like Art Expression or Professional Draw will be able to do so at a special price. On the subject of import duties and so on, my experience has been that it depends a lot on who the company is you get to ship the product. In a lot of cases, I have not had to pay any duty while in others, the duty has been so bad, it would have been cheaper to buy the product here.

Keep an eye on Amiga Shopper for reviews and we'll tell you where you can get ProVector 3 in the UK and for how much. **Larry**

Imagine on – I

Video

The "Use Genlock" button in Imagine 2.0's brush menu causes a "Program Failed error" when I perform a quickrender. How can I get it to work so that Imagine will ignore the background colour of a brush when it is mapped?

Daniel Lee Him
Harrow

Well, actually it isn't the "Use Genlock" button which determines whether or not the background shows through. What you need to do is to make another, black and white, map which you'll use as a Filter Map in combination with your brushmap.

The easiest way to do this is to load your brush into your paint program and then colour all the areas you wish to be transparent (in other words where your background colour is) in white. All the remaining areas (i.e. those which you wish to actually see mapped on to your object) should be coloured black. Pick up the new map exactly as you did the original and then apply both maps identically to the object, but using your original brush as a Colour Map and the new black and white brush as a Filter Map. That should do the trick. If you're still not sure about this, see my answer in AS46 (page 51, "Better Late Than Never") since this answers your question in more detail.

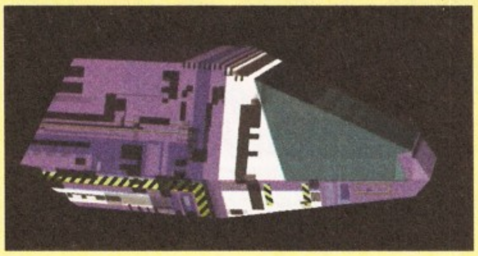
As far as the program error goes I can't be specific since you don't give any details, but could it be that you're using a HAM-8 or 256-colour AGA image? I seem to recall that Imagine 2.0 can't handle these kinds of pictures, so that might be the cause of the error. **Gary**

Imagine on – II

Video

As happy as I was with Amiga Shopper's "The Three Ds of 3D" tutorials written by Mojo, I haven't been able to get my pod 'painted' correctly. The second tutorial perfectly describes how to perform this procedure, but only for LightWave.

Here comes the problem – I'm using Imagine 2.0 (from Amiga Format 53's Coverdisk) and have tried almost everything I ▶



"I can't get my pod painted correctly in Imagine!"

67 can think of to get my bumpmap to map correctly on the side of the pod. I've rotated the axes to almost every position and I've tried all the Flat/Wrap combinations, but, however I do it, the colours on the pod just end up stretched or smeared. It just looks horrible!

Is it me making a mistake or is it Imagine not being capable of performing this kind of action?

As far as making the maps go I've been using Deluxe Paint IV AGA, but I don't have a framegrabber to grab the Imagine Detail Editor screen with. What I do is quickrender an ILBM-12 frame, then load it into DPaint to get the exact shape of the pod. From there on I do everything as is said in the tutorial. Please help!

Dirk J.P. van Sloten
Muiden, Holland

It isn't that Imagine can't do the actions you require, but there are a couple of things which you should realise. The first is that LightWave and Imagine use different systems of axes!

LightWave adheres to the standard Cartesian model of X going left to right, Y going up and down and Z going into and out of the screen, whilst Imagine uses an alternative method which puts the Z axis vertical and the Y axis in and out of the screen. So, you must bear this in mind when preparing your maps.

The second is that Imagine 2 can't do diffusion mapping like LightWave, so forget about trying to duplicate this effect.

As far as bump and colour mapping go, you shouldn't have any problems if you understand which way Imagine's axes should oriented and your maps are brushes which are clipped to exactly fit your object – not pictures saved using the full screen with all the surrounding background area included.

Just to prove it is possible I've included a quick version of the pod which I did using Imagine 2 (quickrendering it your way) and Deluxe Paint to make the maps. Be aware that if you have rotated your pod object after building it (but before mapping it) you must make sure that the object's axis is correctly aligned, otherwise unexpected things will happen during mapping because the wrapping won't be as you expected.

Whilst your quickrender idea is fine, an IFF framegrabber would still be easier and quicker to use. Two PD programs which do a good job are GrabIFF (which is my favourite) and QuickGrab. Both are available from BBSs, on Aminet sites on the Internet and, surely, from PD houses. Still, you've got it covered so long as you ensure that the camera points squarely at your object so as not to skew it around at all. One tip though – instead of doing a full colour scanline render do a Colour Wire render instead, then you'll be able to see where the edges of your objects are, making it easier to determine where the mapping detail should go.

I hope I've made it a bit clearer for you.
Gary

A right mess

I've recently purchased a TV with a SCART socket which I want to hook up to my Amiga 1200 via the video port. I bought the necessary lead and connected it all up and found, to my dismay, that whilst the sound came through loud and clear there was no sign of a picture. All that appeared was a black screen with interference on it.

Now, I'm no brain surgeon but it seems to me that the problem must have been there since I got my A1200 – which was about two years ago and so my warranty must have expired around 12 months ago!

Do you have any suggestions as to what I can do? Can ICL/Wang (or whoever) repair it for me? Where do I stand (apart from on my feet)?

Incidentally, the lead is fine as I've tried it on a different A1200.

Harvey Singh
Telford, Shropshire

Although you say the lead was fine when you tried it on another A1200 does this mean that you tried the TV you bought as well, or was the test made with a different monitor too? Obviously, if your TV works on the other A1200 then both the lead and TV are OK, so your A1200 is at fault, but it's hard to be absolutely sure about this from your letter.

So, let's assume that your A1200 is at fault. Since we know it is out of warranty I'd doubt that Commodore (especially under their current circumstances) or their repair agents would be willing to fix it for free – which you have to admit is fair enough under the terms and conditions of the guarantee. On the other hand, if you've never had a monitor connected to it, except through the RF or composite outputs, how would you know whether the RGB port was ever working correctly or not?

To clarify the situation, I called Commodore's Customer Services and, without going into all the ins and outs, they said that under the circumstances it could not be proven that the fault occurred within the warranty period and so, therefore, your A1200 wouldn't be repaired under the terms of the warranty.

They did, however, say that they thought it was an unusual case, especially when I pointed out that there was no way you would have known that the fault (if it had been there since you bought the A1200) was present until a proper RGB-type TV/monitor was connected. In the end, we were close to going round in circles and the final conclusion was that you would have to bear the cost of repair yourself, however unfair that might seem to you.

ICL are Commodore's authorised repair agents and you can call them on ☎ 01345 626090. Alternatively, you might have a more local computer repair centre who can do the job. Ask around and get quotes before you take the plunge and get your A1200 repaired. **Gary**

PC to Amiga

Please help me! I am doing a C programming course and we are working with PCs using Turbo C. Turbo C has a header file called conio.h. I cannot find this include file in my Complete Amiga C includes and am therefore unable to emulate the gotoxt(int x int y) function. This function positions the cursor at a particular point on the screen. I would like to write a function which solves this problem. For example...

```
gotoxy(5,5);
printf("Hit");
```

...should write "hit" at the 5th position on the 5th line, overwriting anything which was there before. I am sure it is easy to do, but I don't know how to! Unfortunately, we use it extensively in our assignments which makes it very difficult to use my Amiga for course work.

Walter Dresen
London E14

You are quite right in being totally unable to find this include file with Complete Amiga C. "conio.h" is a PC-specific group of functions and you will need to emulate it yourself in order to get the desired action; as you already realise. The bad news is that the Amiga is more complex than a PC running MS-DOS and there is no one single text mapped screen. The PC in DOS (sans Windows '95 which makes it all different) has a text mapped screen. Position 0,0 is indeed position 0,0. On the Amiga, if you open a Shell window, position 0,0 could be anywhere, depending on the position and size of the window.

Your first task, therefore, should be to get a Shell window to open with the same character dimensions of the MS-DOS window you are using. Then, you are faced with moving the cursor to a given position without clearing the screen. This is actually quite easy, using a handful of Amiga console device character sequences. I lifted the information I needed to write your gotoxy() function from the Amiga ROM Kernel Manual: Devices, edition 3, ISBN 0-201-56775-X. This costs about £25 and is very helpful. Here is the listing, it was written and tested under DICE C 3.0:

```
**  Shopper Answers:
**
**  Function to move the cursor to any given
position.
**
**  Compile under DICE 3 with:
**        dcc <source file> -o <object file>
*/

#include <stdio.h>

void gotoxy(int x, int y);

void main(void)
{
    gotoxy(5,5);
    printf("Howdy, partner.\n");

    return;
}

/*****************
**
**  void gotoxy(int x, int y)
```

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SEE ABOVE for hard drives

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For A600 please phone !

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```
**
** Move the cursor to a specified position
on the screen. This function
** returns nothing.
*/

void gotoxy(int x, int y)
{
    printf("%c%d;%dH", 0x9b, x, y);

    return;
}
```

You can see your gotoxy function at the end of the listing, only one line of code on the Amiga! The example above prints "Howdy, partner" at position 5,5. **Toby**

Networking the Amiga

Hardware

I use my A500 Plus for games and serious work, mainly DTP and word processing. I am generally very happy with the above system, but I do feel I am missing out on software and hardware that the A1200 offers. I do not want to dump the 500 Plus, so could you tell me if it is possible to link a 1200 to 500, whilst being able to access both hard drives as well run the software on the 1200.

1. Would this set-up allow hard drive stored programs to run on the 1200?

2. Would the transfer rates suffer, making programs impossible to work with on the 1200?

3. Could I install AGA software on to the hard drives and run on the 1200.

4. If the answer is no, would it be possible to connect the SCSI drives directly to the 1200.

5. I would also like to know where I can get a printer driver for an IBM 5202 thermal ribbon printer. I have contacted most PD houses without any success.

Mr DM Bacon
Surrey

1. You can indeed network Amigas. I had my own 500 Plus networked to both my 1200s using Parnet and was able to access the hard drive on each of the machines using programs like Directory Opus. I could load images sitting on the hard drive attached to a remote Amiga into ImageFX. I did not however try to run a program from a remote terminal. Just because you run a program from the 1200's hard disk, doesn't mean it will run on your 500 like it would on a 1200.

2. There are many possible problems in trying to run a program from a remote computer and not just because of the transfer rate. There are other networking options available, like Envoy which will have a quicker transfer rate, but because of the way the Amiga works, I would stick to running the programs on the machine you are using and not from a remote. It just isn't worth the expense, time and effort.

3. Again, to be honest, looking at your current set-up, you don't have much to gain. You only have a 40Mb drive, which these days is nothing. A program like PageStream 3 will take up more than a quarter of that on its own. If you can get a 1200, buy one with a large hard drive. Prices have come down to silly levels for hard drives and I know that the Quantum Lightening 720Mb 3.5-inch drive I have in one of my 1200s performs faultlessly. As you can only use one machine at a time, and because the 1200 is so much nicer to use than the 500 Plus, I think once bitten by the 1200, you'll end up using it all the time.

4. You can connect your SCSI drive(s) to a 1200 using something like the Squirrel SCSI connector but then wouldn't it be better to use that money for a hard drive to place inside the Amiga? If you want to make use of the SCSI drive, leave it on the A500 Plus and network the 1200 to that machine. You'll still be able to transfer files between the two machines and even transfer files from your 1200 to the Syquest attached to the 500 Plus.

5. Don't know. Does it emulate any other type of printer? If it does, you maybe able to get a printer driver for a printer it emulates and use that. I took a look at the list of printers supported by the program Studio Professional 2 and your printer was not on the list.

When you consider this list contains 499 printers, I would maybe look at getting a different printer. My advice to anyone getting a printer for an Amiga is to buy something that is supported either by a Workbench printer driver or by a third party package like Studio Professional 2.

One last tip. If you are interested in networking your Amiga to anything, I am told there is a book by Dale Larson available called A Guide To The Internet Lans, BBS And Online Services. It costs £19.95 and covers networking. For more information, call Almathera ☎ 0181 687 0040. **Larry** ■

Fill in and get answers to your questions AS**49**

If you send in a question for the Amiga Answers experts, please fill in and include the form below (or a photocopy if you don't want to cut up your magazine). If you have several questions in different fields that should be addressed to more than one of our experts, please send in your queries on separate forms.

Send your form and question to: Amiga Answers, Amiga Shopper, 30 Monmouth Street, Bath, Avon BA1 2BW.

Name: ____________________

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____

____________________ **Post code** ____________________

Your machine:

☐ **A500** ☐ **A500 Plus** ☐ **A600** ☐ **A1000**
☐ **A1200** ☐ **A1500** ☐ **A2000** ☐ **A3000**
☐ **A4000**

Approximate age of machine: ____________________

Kickstart version (displayed at the "insert Workbench" prompt)

☐ **1.2** ☐ **1.3** ☐ **2.x** ☐ **3.x**

Workbench revision (written on the Workbench disk)

☐ **1.2** ☐ **1.3** ☐ **1.3.2** ☐ **2.04/2.05**
☐ **2.1** ☐ **3.0**

PCB revision (if known). Do not take your machine apart just to look for this! ____________________

Total memory fitted (see AVAIL in Shell for Workbench 1.3) ____________________

Chip memory available (see AVAIL in Shell) ____________________

Agnus chip (if known) ____________________

Extra drive #1 (3.5in/5.25in) as DF : Manufacturer ____________________

Extra drive #2 (3.5in/5.25in) as DF : Manufacturer ____________________

Hard disk: ____________________ **Mb as DH** __________ **: Manufacturer** ____________________

Extra RAM fitted – type, size in Mb and manufacturer ____________________

Please indicate details of any other hardware which could help us to answer your question:

____

Now, use this space to describe your problem, including as much relevant information as possible. Please continue on a separate sheet if necessary.

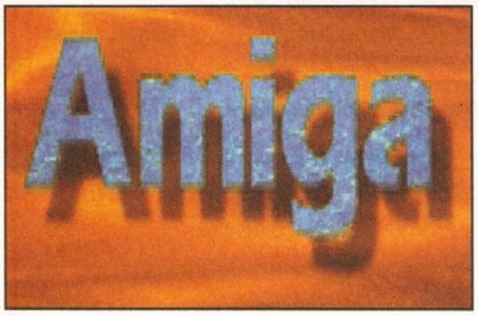
____

Photogenics

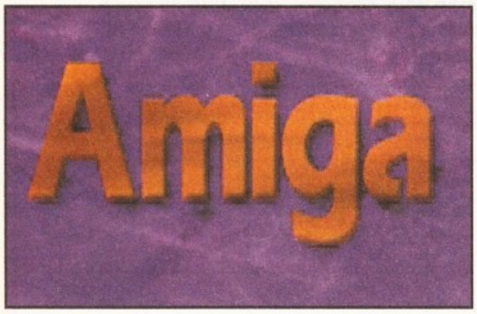
Part 2

Last month **Graeme Sandiford** *started to unravel the mysteries of Photogenics. This month he teaches you how to use alpha channels to create text-based images and shadows.*

"We will make a simple text-based logo that gives the **impression** of text floating over a surface."



Remember to experiment! The example on the disk is nice, but it's only a simplistic image.



Here's another variation on the tutorial, created with the same alpha channels and text.

Yep, it's that colourful part of the tutorials section again, where you get to give your brain a rest from all that taxing programming and just concentrate on making pretty pictures. But don't shut your brain off completely because you'll still need the creative side – left or right, I can never remember.

Anyway, I hope you had fun using alpha channels in last month's tutorial and that you took some time to experiment. With each of these instalments I'll be expecting you to be adding your own personal touches – after all that's what being creative is all about. Also, bear in mind that there isn't really any wrong or right way of doing things – if you think you've found a quicker method, or one that is easier for you to understand, then, by all means, use it – it's the final image that counts.

Right, this month we'll be concentrating on text effects. Once again, alpha channels play a key role, which proves their flexibility and why they are such a great feature to have. We will make a simple text-based logo that gives the impression of text floating over a surface.

The first thing we have to do is add the text. As it happens, the version of Photogenics on Amiga Format's issue 69 Coverdisk has one of the excellent fonts that comes with the full version, Ergarbold. Load it by selecting Open As/Other from the project menu and selecting the text – pick a nice big size for the text – about 78pt should do.

Next, smooth its edges by applying a blur paint mode. Clone the image using <left-Amiga><C> and move it to the alpha channel. Re-select the original text and apply the emboss paint mode. Lighten the image by applying the brightness paint mode.

Now we need a background the same size as the text. The example supplied on disk uses a soft white because the text is a pastel colour, but don't let that stop you from using a more striking one. You might like to try the plasma loader, or create your own texture.



We're going to use the alpha channel again to create a shadow – this adds to a 3D impression. First, select the alpha channel and give it a heavy gaussian blur. Next, use the roll paint mode to shift the text down and to the right (by entering a value of -7 for each axis). Go back to your background and choose the brightness paint mode with a setting of about -100 – et voilá – shadow.

Next, we need a pattern for the text. There's one thing you should keep in mind when selecting the image – if you have a subtle background, go for a striking pattern for the text. The opposite is also true. Make this image the secondary image.

The final step is to rub the image that is to be used for the text through to the background image. Remove the text we used for the shadow from the alpha channel and replace it with the embossed text. Select the background image again and apply the rubthru paint mode. That's it, finished, but remember don't forget to experiment! ■

Four more tutorials

This is the second of six tutorials that we've planned for you. We will be covering most of the important features of Photogenics. However, some of the techniques that we will discuss in the tutorials listed below are equally applicable to other similar packages.

1. Alpha channels
2. Text effects
3. Filter effects
4. Image composition
5. Image retouching
6. Drawing techniques

On the Coverdisk



We have included some of the images used to create the logo on Coverdisk 2. This prevents you having to keep too many images in memory, especially if you're using the Coverdisk version of the program. The images are of a low resolution (320x256), so you shouldn't encounter any memory problems.

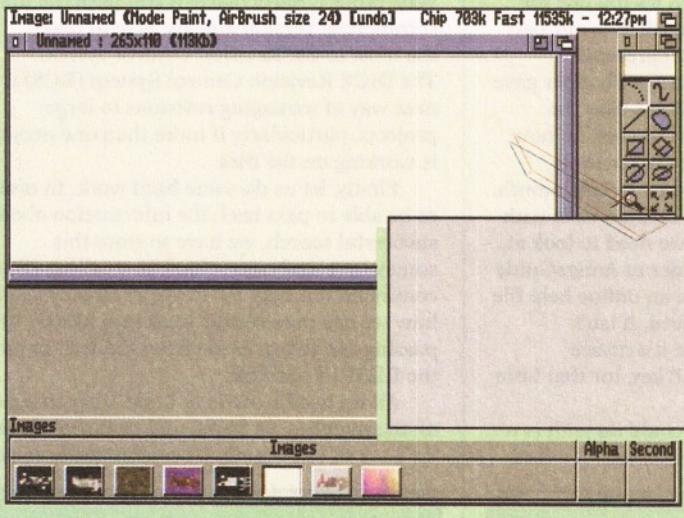
Making your own logo



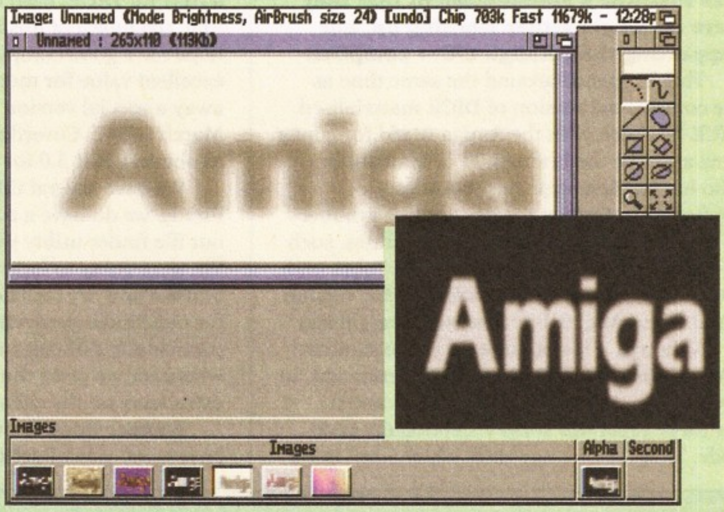
1 ***As this tutorial is all about generating text-based effects, the first thing we need to do is load some text – Ergarbold (78pt) will do.***



2 ***To give the text a more solid look, clone the text and copy it to the alpha channel. Then use the emboss paint mode on the original.***



3 ***Not a lot happening here! As the text is going to be a delicate pastel pattern I went for a soft, white background, but use your own taste.***



4 ***Select the alpha, apply the roll paint mode (values of -7) and give it a gaussian blur. Select the background and reduce its brightness.***



5 ***Next we need a pattern to serve as the fill for the text. When you have one move it to the second image layer.***



6 ***Finally, replace the current alpha image with the embossed text. Select the background and apply the rubthru paint mode.***

DICE Part 1

The SAS/C for the Amiga disappeared and instead DICE turned up to save the day. It's time to whip out your AS47 DICE Coverdisk and start programming. **Toby Simpson** *shows you how to make the most of it.*

A most *unamusing* thing has happened in the Amiga world, which potentially affected thousands of Amiga developers and almost certainly stopped some developers from working with the Amiga. That was SAS Institute's announcement that they were no longer either working on, nor supporting their Amiga C/C++ compiler.

This happened around the same time as the commercial version of DICE materialised. DICE has been with the Amiga world for a long time and was the brain-child of Matt Dillon, who has written some major Amiga applications. Getting together with a number of other well-known Amiga personalities, such as Andy Finkel, Bryce Nesbitt, John Tobes and lots of other pretty clever blokes, DICE version 3 was born. And just in time, some might say.

Although it is not quite up to the standard SAS reached as a development environment, in my opinion, it is getting damn close and it certainly generates some exceptionally good code. There are many issues which need to be addressed and hopefully someone out there will write a C++ pre-processor for it. Out of all the C compilers available for the Amiga (and there aren't that many) none of them have the driving force behind them that DICE does (and SAS had some good guys).

Anyway, without wanting to sound like an advert for DICE, even though it's too late for that, the moral of this is that DICE is our best hope for a good compiler. It represents excellent value for money. Amiga Shopper gave away a special version of DICE 3.0 on the March (AS47) Coverdisk. See the box on how to obtain DICE 3.0 for more information.

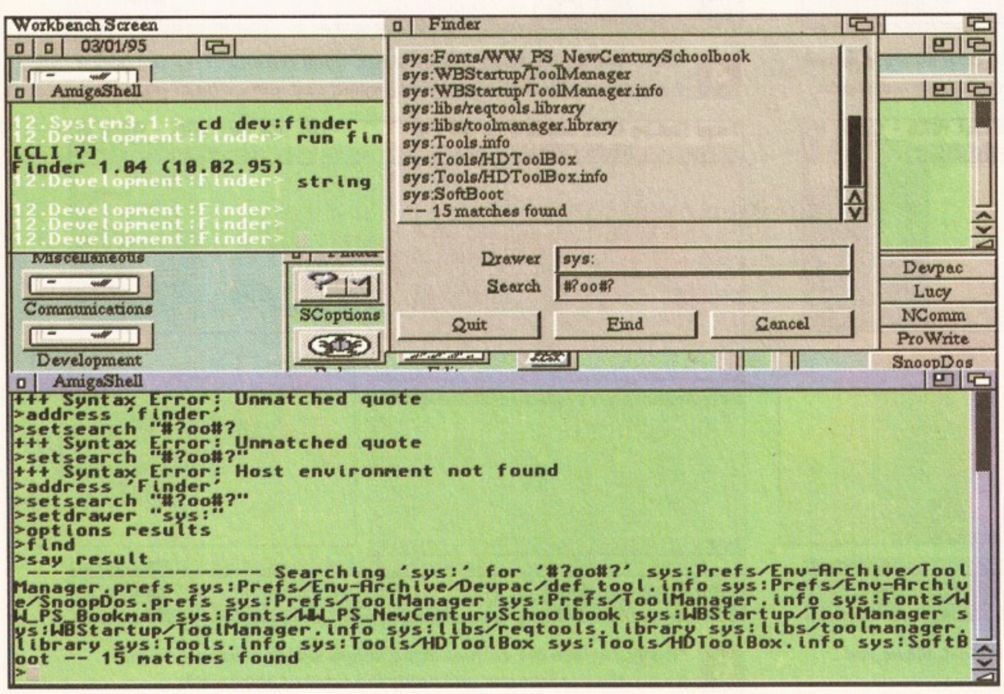
We have several things to cover this month. Firstly, we do have a couple of loose ends with out file finder utility which we need to look at. We were going to have a glance at AmigaGuide and see how we could create an online help file for our Finder program, indeed, it isn't particularly difficult to make it activate whenever we press the HELP key, for that little extra icing on the cake.

Another thing we really could do with is to have some way of getting the results of a find back into a calling ARexx script. We're going to look at both of these and at the same time, integrate our source code properly into the DICE development environment.

This involves the excellent VMake utility, which although a little un-intuitive and visually unstable is a great way of managing your project, particularly if you have the full commercial version and are able to make the most of the Revision Control System. The DICE Revision Control System (RCS) is a neat way of managing revisions to large projects, particularly if more than one person is working on the files.

Firstly, let us do some hard work. In order to be able to pass back the information about a successful search, we have to store this somewhere and pass it back to a calling ARexx command if it asks for it. We've already seen how we can pass results back into ARexx, by passing the string "Hello from Finder!" back to the RESULT variable.

All we need to do is to build a big string of all the matches we found and pass the whole lot back as one chunk. Of course this is easier



The results of our new ARexx result returning code!

Obtaining DICE 3

On the March Coverdisk 1 (AS47 – see page 82 for back issues) we gave away a special version of DICE 3. Obviously, the authors of DICE wouldn't make much money if we gave away the whole product, so it was especially cut down. It has the following limitations:

- **You can't use bitfields or floating point.**
- **The maximum executable program size is 40K.**
- **Each source file can only have up to four functions in it.**
- **You can't use this version of DICE to generate commercial applications, or for work purposes. It is for the private home usage by Amiga Shopper readers only.**

If you're getting into this now and fancy the entire product, together with a 450-page manual (which is hard reading, but most excellent all the same), then you can obtain it from the Amiga Shopper Mail Order on pages 44–45, or from the UK distributors Forth Level Developments, 31 Ashley Hill, Montpelier, Bristol BS6 5JA, England.
☎ 0117 955 9157, fax: 0117 955 8225
E-mail:
dicecsales@flevel.demon.co.uk (sales info).
dicecinfo@flevel.demon.co.uk (general info).

said than actually done. There are many approaches and the one we'll be using is the one which makes the best uses of stuff we already know. Let's look through this as a list:

1. Initialise list.
2. Have we found a match? Yes: Store in list.
3. Go to step 2 until we have no more matches.
4. Build a massive string of all matches from the list separated with a known character, such as a space.
5. Return this string to ARexx if requested.

We already have the main loop which does this and what's more, we already store the results into a list. This list is then initialised correctly every time we start a search and correctly freed when we quit the program. With this in mind, we only need to concentrate on getting this information back to an ARexx script. The best way to do this is to attach the search result string to the FIND command which triggers a search.

Brushing aside how we will plug it into the logic, now is the right time to go through the procedure. In order to return a single string we need to allocate a chunk of memory to hold all of the matches together and a character to separate them. This will involve "walking" the list, that is, going through it stage by stage counting the number of bytes which are used. We can now allocate a block of memory. Then we need to walk it again, but this time, copying the strings from the list out and into our block of memory. This result can then be returned using our call to CreateArgString() which is in our EventLoop() event handler function.

OK, enough of the theory, let's get down to it with some code. In our EventLoop() function, our code for processing the ARexx FIND command currently looks like this:

```
case AREXX_FIND:
      GUI_Find();
      break;
```

All this does is to call the finder subroutine when we get a FIND command in. After this find is complete, let's loop through the list:

```
total_bytes = 0;
for (node = find_list.lh_Head; node-
☛ >ln_Succ; node = node->ln_Succ)
total_bytes = total_bytes + (strlen(node-
☛ >ln_Name)) + 1;
```

This is a neat usage of the FOR statement in C. We are looping through an entire list with one line. I must admit guilt to this, I didn't figure this out until I'd looked at the ROM Kernal Manual, but I'm most impressed! It certainly shortened the size of the source code I wrote. It takes advantage of the way a FOR statement works. There are three parts, the start condition, the end condition and the thing to do until the end condition becomes TRUE.

To follow this through, we start at find_list.lh_Head, which is the pointer to the header node in our list and keep going until the current node's successor (next node in the list) is NULL and all the time, work our way through the list by moving to the next node. In the meantime, we're keeping a running count of the total numebr of bytes which we have used by totting up the strlen()'s of each of the node data values. Node that we also add an extra byte for each find to take into account our spacing character. Having done this, we can now allocate a chunk of memory:

```
/*

**  Allocate RAM and exit for error:
*/
if (!(find_string = malloc(total_bytes + 1)))
        {
        ShowErrorRequester("Can't allocate
RAM for result", NULL);
        break;
        }
```

We allocate a nice large block with an extra byte for safety. find_string is defined as:

```
char  *find_string;
```

If the allocation fails, we use the ShowErrorRequester() function we wrote last month to show the problem and exit. Having grabbed our memory, we can now shoot through the list again, but this time, copy each one across to the memory block we've just allocated:

```
cp = find_string;
   for (node = find_list.lh_Head; node-
>ln_Succ; node = node->ln_Succ)
{
        strcpy(cp, node->ln_Name);
        cp = cp + (strlen(node->ln_Name));
        *cp = SPACER_CHAR;
        cp++;
        }
   *--cp = 0;
```

It looks nasty, but it is actually quite straightforward. Firstly, we're repeating the same FOR loop we used to count the total bytes, but this time inserting more instructions into the loop body. We take a copy of a pointer to the start of the string into cp before the loop. cp is defined as:

```
char  *cp;
```

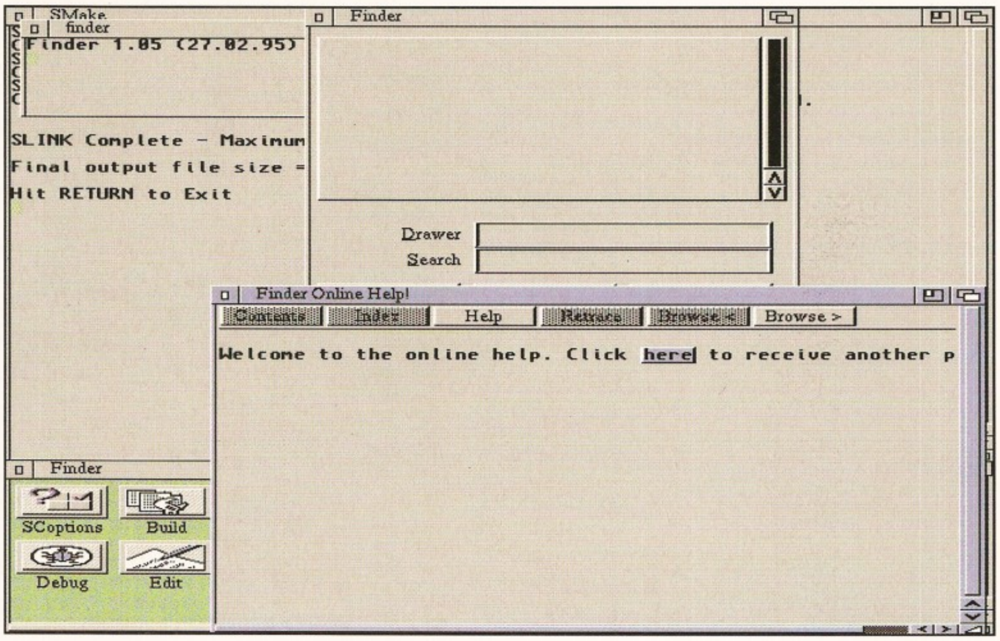
At the start of the loop body we copy the list entry across to cp. Then we add the length of the string we've just copied to cp. This points cp to the byte AFTER the end of the string. We now set this to be the spacer character, which is defined at the start of the program. Currently we define it as a space:

```
#define  SPACER_CHAR        ' '
```

You may wish to change this to a value which is not likely to appear in a file-name. This uses the extra byte we remembered to allocate for each list entry. The pointer is then increased by one and the loop continues until all strings have been copied across. Finally, we put a null byte at the end of the string to terminate it. (Due to the nature of the CreateArgstring() function, this is not strictly necessary, but I'm a nervous fellow and can't help it.)

Our result string is now built and we can return it. If our code correctly builds a result string we set a Boolean flag called 'result' to TRUE. This is then picked up a few lines later when the result string is sent out:

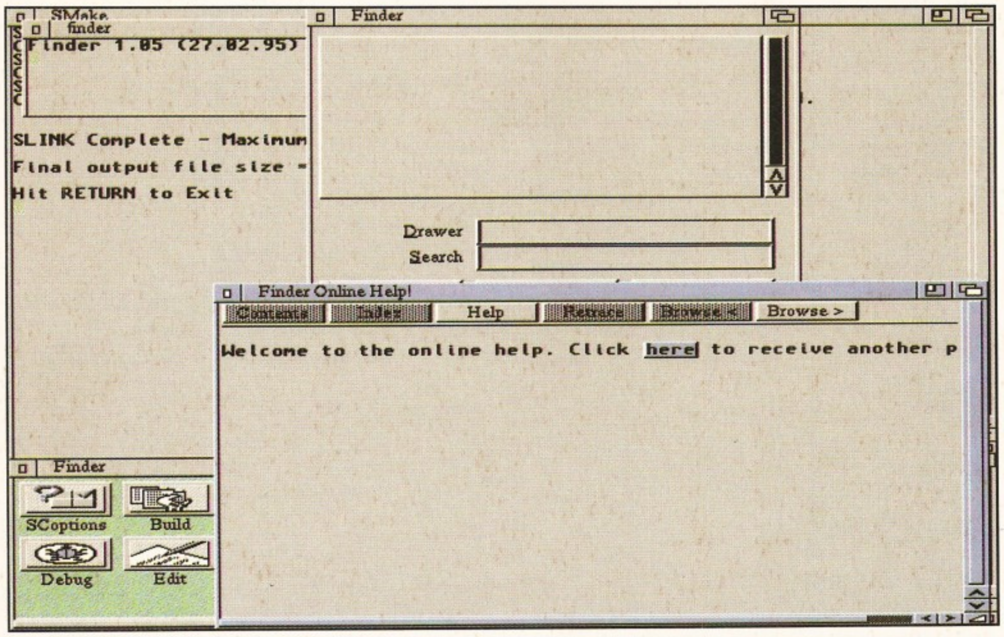
```
if (msg->rm_Action & RXFF_RESULT)
     {
     if (result)
        {
        msg->rm_Result2 = (long)
CreateArgstring(find_string,
```



AmigaGuide at work. It's not the most comprehensive help in the world, but we pressed help and up it popped.

Revision Control System

What on earth is a Revision Control System (RCS)? Well, for a start, it is another neat computer TLA (Three Letter Acronym.) It also has a meaning – any major programming project will consist of a number of source files, many header files and lots of other bits. To avoid problems with forgetting what was done, or to what, a revision control system of some kind can be a real bonus. DICE 3.0 provides such a tool and we'll be making it work for us next month. Unfortunately, the RCS is not available on the Coverdisk DICE we gave away on the March issue, but is on the commercial version. (See other boxout.)



VMAKE managing the compilation of our project. It took several compiles to get it working, but once it's up and running it is a breeze to use. I'll test it with something really nasty next month!

```
strlen(find_string));
        free(find_string);
/* Free after returning! */
        }
      else
        msg->rm_Result2 = (long)
CreateArgstring("No result", 9);
      }
```

For completeness sake, we're returning a result of "No result" if there is nothing to return, otherwise we'll return our string – not forgetting to free it afterwards of course. In theory, we could come unstuck here, as ARexx strings are limited to 64K in length, but we're unlikely to make a result anything like this long, so don't be alarmed!

Well, that's about it, one result sorted. Now is the time to think about some documentation for our program. No program is complete without some sort of documentation. It has become a sad habit amongst some people to fail to write anything at all, thinking perhaps: "Well, I'm the only person who is going to use this, so why bother?". Indeed, but in a year or so's time, when you can't remember the ARexx commands you defined and you've lost the source code, you may well regret not making at least some notes.

The buzz-word these days is "online help". This means that the user is able to receive help about the program at any time whilst running it. On the Amiga we can make use of the conveniently placed HELP key for this. When the user presses "HELP", we can fire up a help program and show some information. If you're remotely serious about the Amiga, then the chances are that you have the AmigaGuide program. If you have KickStart 3, then the MultiView program in your utilities drawer on the Workbench disk also shows AmigaGuide files. AmigaGuide is a hypertext system. This means that the user is presented with a document and is able to click on certain words of interest to see further information. AmigaGuide makes this nice and easy. Take a look at this:

```
@database "Online_Help.guide"
```

Hot off the press

Rumours abound about what will happen with DICE in the future. An informant of mine suggests a C++ front end might be in the running and a new version could be out even by the time you read this. Great news! Rest assured that we'll test drive anything new that pops through my letterbox. Except my bills and bank statements of course.

```
@width 80
@node Main "Finder Online Help!"

Welcome to the online help. Click @{"here"
link MoreHelp} to receive another page!

@endnode
@node MoreHelp "More Help!"
Here is another page!

@endnode
```

Everything that starts with an @ sign is an AmigaGuide control sequence. Everything else is shown as text. We start by setting a couple of initial values, such as the width of the text in characters. We then define a page, called a node, using the @node command. We name this node "Main" and give it a title. The title is shown in the window title-bar. Then we have some text. The "here" text is created to be a link. This is shown on the screen as a button gadget which the user can click on. When pressed, it links to a node called "MoreHelp". We're now finished with this page, so we end it with the @endnode command and move to the next.

It is unlikely you have not seen AmigaGuide stuff before since it is becoming increasingly popular on the Amiga. I've passed on writing full documentation this month; you may like to have a spin yourself and play with the AmigaGuide commands a bit. I won't go into too much detail – this is a C tutorial after all, not an AmigaGuide one! The above example file can be found on the Coverdisk.

If you do not have Multiview, click on the icon once and select "Information" on the Workbench "Icon" menu and point the default tool somewhere else instead, such as the AmigaGuide program. (Which, if anywhere, will be in your Utilities drawer on the Workbench disk.)

Having created our online help file we need to be able to fire it up. The code I've included to do this is as follows:

```
    /*
    ** Raw key processor:
    */
case IDCMP_RAWKEY:
      if (imsg->Code == HELP_RAW_KEY)
        {
        sprintf(help_command, "run >nil: ☛
<nil: sys:utilities/multiview ☛
dev:finder/online_help.guide");
        SystemTags(help_command, SYS_Input,☛
NULL, SYS_Output, NULL, TAG_DONE);
        }
      break;
```

We're talking Short-Cut City Arizona here, but it *does* work a treat. We've already asked for IDCMP_RAWKEY codes to be fetched. The RAWKEY code 95 means that HELP has been pressed. We make a define at the start of the source code:

```
#define HELP_RAW_KEY                    95
        /* Raw keycode for HELP.        */
```

...and Bob's your aunt's uncle's sister's brother's wife. We detect this with a similar chunk of code which we use for IDCMP_VANILLAKEY and set up the Shell command we'd type to make the online help appear and make it happen with SystemTags(). SystemTags() is a dos.library function which allows us to run Shell commands from within a program. You'll need to change this to ensure everything points to the right place on your system.

Back to DICE briefly, before we run out of time and words. The stuff on this month's Coverdisk includes a special version ready to rock and roll with DICE 3.0. This includes the VMAKE goodies. I must admit to getting into a real pickle over this, the manual was not much help and the VMAKE program didn't appear to operate as the manual suggested. I also discovered that by enlarging and reducing a window a few times, you could really make the program upset its display. However, once I'd got a project started, it was a doddle to use. A directory created by the DICE installation had to be renamed for some reason (the Amiga30 3.0 includes had to be renamed to Amiga, i.e. dropping the 30).

Once this was done and a comma, which SAS/C hadn't objected to, was removed, we were cruising. This VMAKE file is on the Coverdisk together with the normal SAS/C build files. Double-click on it to see how it works. You'll have to have DICE 3.0 installed for this to work of course. We'll be covering, creating and managing a project using DICE next month, so stick around.

Well, that's it for this month. Remember you can find the source code, a runable version of the program and the example AmigaGuide help file on this month's Coverdisk. Next month, we'll go full throttle into learning how to make proper use of the VMake program which comes with DICE 3.0. ■

Assembler **Part 8**

Has the Lottery draw still left you penniless despite the best efforts of your Lottery prediction program? Then let **Toby Simpson** *update your software and improve your chances by reading part 8 of his Assembler tutorial.*

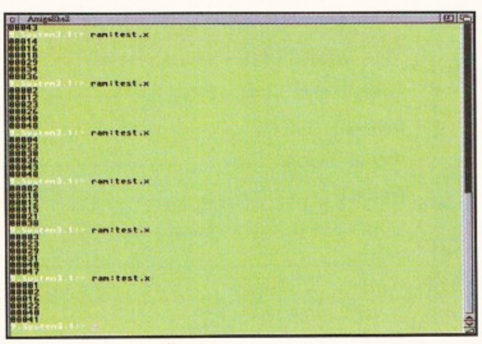
Still here? Still poor? Well, that means that our Lottery Number program we've been knocking up in Assembly language has failed to make you rich. This is hardly surprising, as the odds are stacked against you and our program leaves a lot to be desired. This calls for a revision or two to bring it back into line. One of its biggest problems is the general unfriendliness of the output. There are two particular issues which we will address this month:

- It can pick two numbers which are the same. This is a real hassle, as you then have to check for duplications yourself and fill in alternative numbers, which means the results are never truly random as your choices will be biased.
- The numbers are not printed on the screen in numerical order. This is purely cosmetic, but makes it easier to fill in your potential winners and besides, it looks good and allows us to look into sorting.

Both of these fixes require some changes to the basic structure of the program. Currently, we pick each number and show it on the screen immediately. If we are to check for duplications and sort them into numerical order, we need to generate all six numbers first, process them and finally show the whole lot on the screen.

We'll come to sorting in a tick. Firstly, let's revise the general order of the program. The sequence of code will now be:

1. Initialise the random number generator. (Seed it.)



This week's lucky numbers. By the time you read this, I'll know how successful they weren't.

2. Pick a number.
3. Have we picked it? If yes, go to step 2.
4. Store it in our list. Have we picked 6 numbers yet? If no, go to step 2.
5. Sort them into numerical order.
6. Show the results.

This sort of table helps us to understand how it is all going to work. It is a sort of feeble flow diagram, it takes only a few minutes to knock up and greatly helps us in the design. We'll deal with the main loop, which is steps 2 to 4 first. In order to check for duplications, we have to store each number as we pick it into memory somewhere.

We'll define a list of six bytes, one for each of our values. The programming term for this is an array – if you've programmed in C, Pascal or BASIC before, you'll be more than familiar with arrays. For those who aren't, an array is a list of values of the same type, which you can access with one easy statement rather than lots of different variables. Without arrays, our program could look very nasty:

```
        moveq      #49;d0
        bsr                    Random_Number
        addq.w     #$01,d0
        move.w     d0,our_number_1
```

...and now repeat the above code for each of the five remaining guesses and still have to check for duplications as we go.

Nasty, eh? It also leads to long, tedious programs which take forever to write and never work properly. A far better way would be to pick the numbers using a loop of some kind.

```
Lottery_Guesses:dc.b        0,0,0,0,0,0
```

This is our array. At Lottery_Guesses we have reserved 6 bytes of memory, which run from Lottery_Guesses to Lottery_Guesses+5 inclusive. We are familiar with indirect addressing and instructions such as LEA, so the following few lines should make sense:

```
; ---- Initialise variables for our main loop
....
          moveq      #$05,d1
          lea        Lottery_Guesses(pc),a0
;
; ---- Pick 6 numbers with no duplicates ....
ST_Get49: moveq      #49,d0
          bsr        Random_Number
          addq.w     #$01,d0              ; Ensure
the number is at least 1
          cmp.w      #49,d0
          bhi.s      ST_Get49  ; Loop around if
it is > 49
;
; ---- Check if we've already picked this
number ....
          lea        Lottery_Guesses(pc),a1
          moveq      #$05,d2
ST_Check: cmp.b      (a1)+,d0
          beq.s      ST_Get49
          dbra       d2,ST_Check
;
; ---- Store this number out in our list and
continue till we're
;   done ....
          move.b     d0,(a0)+
          dbra       d1,ST_Get49
```

You'll recognise the first bit from last month. We use our new random number routine to pick a number from 1 to 49, which is the valid range. We then use a quick loop to check our number against all the other ones we have picked so far. Experienced programmers will note that this is not necessarily very efficient, as the first time round we check our number against all six, but there is bound to be no conflict as this is the first one.

There is an easy way of improving it, but I'll leave that to you. (Hint – the clue is in the value of D1, which is the main loop counter.) Then, at the end of this routine, we store our successful number out and continue until we've picked six. Now we have six numbers in memory, all jumbled around and we need to sort them. To do this we're going to use an old favourite, the bubble sort. It's so good because it's easy to understand and program. If we sorted into numerical order, so the lowest number would be the first and the highest the last, a bubble sort would work like this:

1. Point to the first pair of numbers.
2. If the first one of the pair is greater than the second, swap them over and count one swap.
3. Point to the next pair.
4. Go to step 2 until we've done all the pairs.
5. If we didn't count any swaps, the sort is done. If we did, go to step 1.

If you think about this for a while, it should sound nice and obvious. It's called a bubble sort because the large numbers bubble down to the bottom of the list step by step. More

efficient sorting algorithms take this into account and can perform sorts a lot faster.

In Assembly language, this is going to be nice and easy. We can translate the steps above into Assembly language one by one. Step 1 is to point to the first pairs, this is easy:

```
;
; 1. Point to the first pair.
BS_Sort: lea      Lottery_Guesses(pc),a0
         moveq    #$00,d2
; Our swap counter
         moveq    #$04,d3
; Our loop counter (Total swaps to do)
```

We also initialise two counters. Both are used by the pair swapping loop below. The first in D0 is to count the numbers of swaps we performed as we loop around. The second is to make us stop when we have tried all the pairs. With six numbers, that is five pairs...

```
1  2  3  4  5  6
```

...draw a circle around each pair and you'll see. 1 and 2, 2 and 3, etc up to 5 and 6. Since DBRA loops around once more than the number in the counter, we load 4 into D3. For our next trick, we check if the first number in our pair is greater than the second and if so, we swap them around. No new instructions here:

```
;
; 2. If the first number in the pair is the
greater, swap:
BS_Bubble_Loop:   move.b   (a0),d0
         move.b   1(a0),d1  ; Fetch both
numbers
         cmp.b    d1,d0
         bls.s    BS_No_Swap         ; No
need to swap.
;
;  So swap them and count a swap:
         move.b   d0,1(a0)
         move.b   d1,(a0)
         addq.w   #$01,d2            ;
Increment swap counter
```

The thing of interest is the pre-indexed indirect addressing mode we have used. For example:

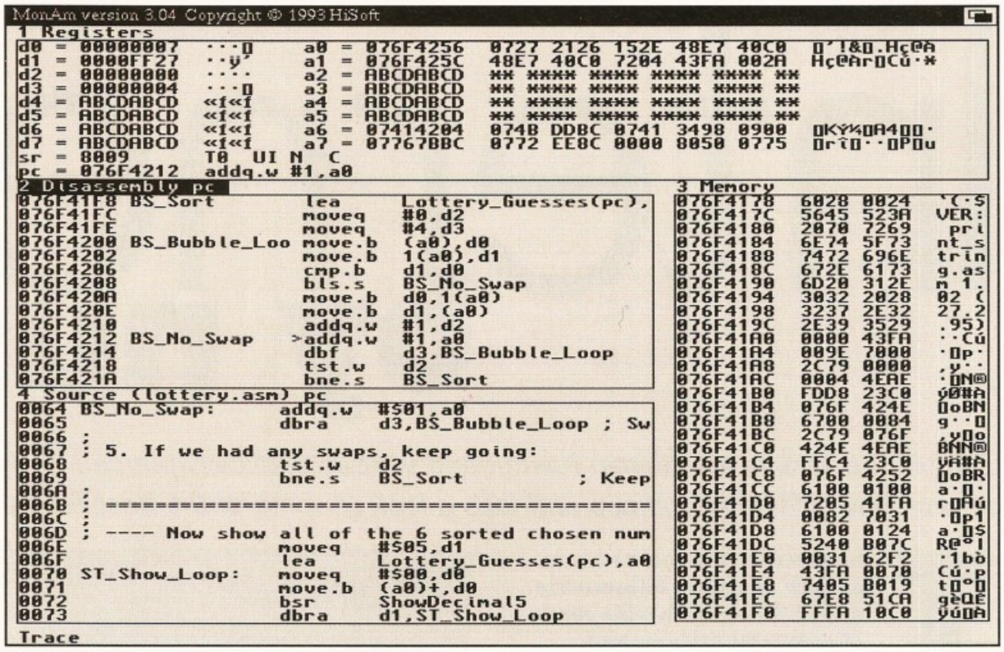
```
         move.b   1(a0),d1
```

If you have not already guessed what this does, the easiest way to understand it is to speak it out in English. It translates as follows: Add 1 to the contents of A0 and move the byte pointed to by the new value of A0 into D1. The addition performed using this instruction (1 to A0 in this case) is only temporary for the instruction and will not affect the actual value of A0. You can make all sorts of neat tricks with indexing, either with values such as we've just done, or with actual register contents. How about this one which only works on 68020 chips or above:

```
         move.w   16(a0,d2.w*4),d1
```

This one translates as multiply D2 by 4, add it to A0, then add 16 to A0 and move the word value pointed to by the new value of A0 into D1. Neat, eh? This saves several instructions. A beginner programmer may have ended up with this horrible mess instead:

```
         mulu            #4,d2
         add.l           #16,d2
         add.l           d2,a0
         move.w   (a0),d1
```



Running through the code with a debugger to check if the bubble sorting algorithm is working OK.

...and the above code, other than being horrifically inefficient, also corrupts both D2 and A0, whereas the indexed instruction does not. Even without the 68020 goodies, we can simplify the above foursome to...

```
         lsl.l           #$02,d2
         move.w   16(a0,d2.w),d1
```

...which only corrupts D2 and is much faster. Note that we have used some of the boring logic stuff we learnt last month to take a short-cut with the multiply instruction and shifted D2 left two bits instead. A lot of computer multiplies and divides are nice numbers like 1, 2, 4, 8, 16 and so forth. We can perform these with shifts to the left or right much faster than the 68000's specific multiply and divide instructions (which are terribly slow).

Back to the subject in hand. Now on to stage 3, moving to the next pair:

```
;
; 3 and 4. Point to the next pair:
BS_No_Swap:         addq.w   #$01,a0
         dbra       d3,BS_Bubble_Loop ; Swap
all pairs
```

This is done by simply adding 1 to our pair address, which is in A0. Then we loop back to the bubble loop until we've swapped our five pairs. Then it is on to stage 5

```
;
; 5. If we had any swaps, keep going:
         tst.w    d2
         bne.s    BS_Sort            ;
Keep sortin'
```

In this bit, we simply check if we performed any swaps. If we didn't, then this means that all of the numbers are now in the correct numerical order and if this is the case we can now end the sort.

If D2 (in which we count every swap we do) is anything but zero, then at least one swap happened, so the numbers may not necessarily be in order yet – we would go back to the main sort loop starting at the first pair.

That is it! Our first sorting algorithm. You can modify the bubble sort above to sort just anything, from names in an address book to lists of a million numbers. It may not be fast, but it gets there. Having sorted our numbers, it is now simply a matter of showing them all on the screen, using the ShowDecimal5 routine we did all those months ago:

```
;
; ---- Now show all of the 6 sorted chosen
numbers ....
         moveq     #$05,d1
         lea       Lottery_Guesses(pc),a0
ST_Show_Loop:      moveq    #$00,d0
         move.b    (a0)+,d0
         bsr       ShowDecimal5
         dbra      d1,ST_Show_Loop
```

The full listing to this month's lottery program can be found on Coverdisk 2 (ShopperChoice), along with an executable version, so readers out there who just want to see what we've been getting up to all these months can see the results of our hard work and share in the extremely bad fortune we have had so far.

We've pretty much exhausted this subject now and I'm beginning to run out of bad lottery joke material [Beginning? – Ed's note].

Before we do leave it, however, we'll delve into graphic user interfaces (GUIs) a tad and slap a window and a button around our guessing routine and make it look prettier to run.

When we've dealt with intuition, including keyboard input, buttons, screens and windows, we'll do a very naughty thing indeed and learn how to program the Amiga custom chip hardware directly, whilst doing our best not to make our programs become unreliable.

And, remember, if you win anything, I only ask for half. You can't get fairer than that now, can you? See you next month! ■

Internet by numbers

Despite his lack of a Mohican haircut and various exotically pierced body parts, **Darren Irvine** *feels qualified to don Davey Winder's shoes and take a look at some of the best Amiga resources on the Internet.*

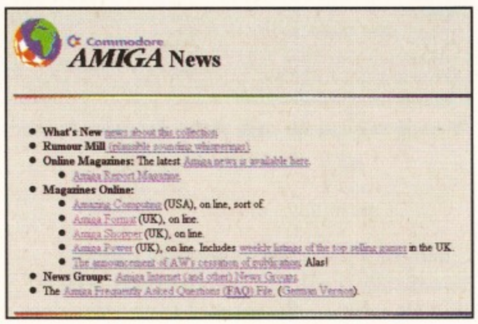
The Internet is a vast resource of both technical information and software for a wide range of computer systems and, fortunately, the Amiga is no exception. In fact, some of the most comprehensive and well organised software archives on the Net are for your favourite machine.

Although you could probably fill a book with the details of every Amiga resource available, I've listed a few here which everyone should take a look at. Everything is available on the Net, from the latest demos, to gossip and news on the current Commodore situation and if you're just using your Internet access to look at pretty World Wide Web pages, then you're missing out on some of the best parts.

Software archives

If it's Amiga software that you're after, then the place to look is Aminet. This archive contains PD and shareware software for the Amiga covering a huge range from games and demos through music related software to Comms and business software. The archive is hierarchically arranged by subject, making it fairly easy to find what you are looking for – see the box entitled "Software available from Aminet" for a complete list of the subjects covered.

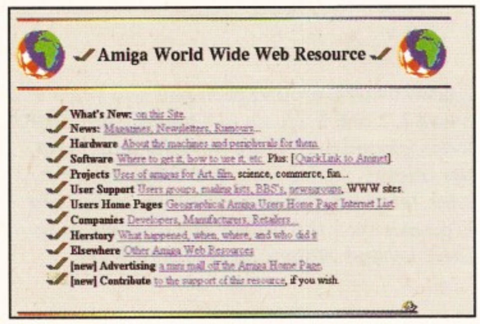
Aminet will be especially useful to you if you are new to the world of Comms, since there are a number of sub-directories under the Comms level which entail software covering everything from BBS and Fido software to the latest releases of Internet-related software like Mosaic.



Michael J Witbrock's Amiga homepage is a great place to start on the Internet for Amiga owners...

You'll be able to find useful Internet tools like the Grapevine IRC client, as well as extensions to Fido programs like Spot. There are also a number of cut-down demonstration versions of various commercial software packages and as well as actual software, there is a lot of other useful stuff available, from fonts and icons to mods and samples for music trackers like OctaMED and Soundtracker.

Although the main site for Aminet is on the machine belonging to the Washington University Archives, the actual archive directory structure itself is mirrored on a number of sites around the world. What this means is that each site has duplicate copies of the original Aminet archive, automatically updated regularly – typically three times a day. There are about 10 mirror sites in total, but only three of them have the entire contents of the archive. You can access the full Aminet using anonymous ftp at the following addresses. Note that as always you should choose the site closest to you geographically (in this case the Imperial College Archives ftp.doc.ic.ac.uk) unless that site is too busy to allow anonymous logins.



...It contains links to most of the other important resources, as well as unique information of its own.

ftp.wustl.edu
/systems/amiga/aminetftp.uni-paderborn.de
/pub/aminetftp.doc.ic.ac.uk
/pub/aminet

Although using FTP can be quicker to use once you get used to the layout of the Aminet directories, you can also access some of these sites using a Web browser by selecting one of the following URLs:

http://wuarchive.wustl.edu/~aminet
http://www.doc.ic.ac.uk/~aminetWorld Wide Web Resources

Although software FTP archives such as Aminet are reasonably well organised, many of the Amiga resources on the Internet are best accessed by browsing the World Wide Web. Apart from anything else, using the Web is a lot more fun than FTP and finding useful stuff even when you don't know exactly what you are looking for is much easier.

There are Web pages for just about every aspect of Amiga software and hardware, as well as a number of "homepages" set up by individual Amiga enthusiasts. There are some pages which contain pointers to various help resources on the Net and some which have hypertext versions of Amiga 'zines. Others are

Software available from Aminet

The following directories found below the /pub/aminet directory contain just about every conceivable type of software that you could ever need. If you can't find it here, but do manage to find what you're looking for elsewhere, Aminet encourage the uploading of new files. Feel free also to upload any programs, mod files or artwork that you have generated yourself.

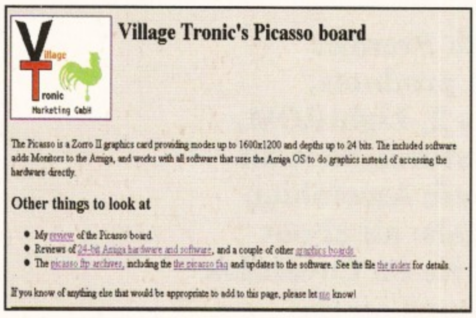
biz/ Business software
hard/ Hardware related
comm/ Communications
info/ Site information
demo/ Euro style demos
misc/ Miscellaneous
docs/ Text documents
mods/ Music modules
dev/ Developer software
mus/ Music software
disk/ Disk tools
pix/ Pictures
game/ Games software
text/ Text related
gfx/ Graphics software
util/ Utilities

One incomplete Aminet site which is worth a look at is the ftp archives belonging to Masaryk university in the Czech Republic. Although not all the Aminet files are there, this archive has a number of Amiga directories that are unique and might just be what you are looking for. Access is via anonymous FTP at the following address: ftp.dcs.muni.edu /pub/amiga

little more than comprehensive cross references to other sites, which actually makes them great places to start exploring the Amiga resources on the Web. Some of the individual homepages set up by Amiga users can make particularly interesting reading.

If you're an Amiga programmer, you will almost certainly be able to find at least one Web page dedicated to your language of choice. One of the best catered for Amiga programming languages is AMOS, with at least two extremely comprehensive sites on the Web. If AMOS is your thing, check out the Playfields AMOS page in the US at the following URL:
http://www.gate.net/~play/

Playfields has a magazine for AMOS programmers as well as various links to technical programming help areas. For even more AMOS-related information, check out the



If you have extra hardware connected to your Amiga, the Web is a great place to get more information.

UK site AMOS City at this URL:
http://www.cee.hw.ac.uk/~ceebdb/amos/

Note that although each of these sites has links to the other, each one has its own character and areas of special interest. If Amiga E is the language you are interested in, check out the useful links from The Grove Web site. As well as programming features, this site also has links to a number of Amiga software archives, including collections of AmiTCP-related software. There is also a good selection of Amiga technical information documents. The URL that you need is:
http://grove.mv.com/Web Directories

One of the most comprehensive lists of Amiga-related Web pages has been set up by the Champaign-Urbana Commodore Users Group (CUCUG). This massive homepage contains links to just about every technical, commercial and entertainment Amiga Web site that you will ever need. As well as the usual links to software archives and lists of technical documents, there are links to hardware forums, collections of Amiga 'zines and example source code for programmers in a wide range of languages – everything from ARexx and AmigaBasic to Lisp and C. There is also the latest news from the Amiga world.

This is one URL which would be extremely useful to have in your Web browser's bookmark list. Check it out at:
http://www.prairienet.org/community/clubs/cucug/amiga.html

Another useful directory of Amiga resources can be found at the homepage belonging to Anthony Fiarito. Although not quite as complete as CUCUG's page, there are some extremely useful links here and everything is arranged in a straightforward, easy-to-use way. This site is worth a look at if graphics are your thing since it has a link to the Official Amiga Scene Graphics FTP Archive. The URL is:
http://www.ee.pdx.edu/~alf/html/amiga.html

Any list of Amiga resources on the Web would be incomplete if it failed to mention Michael J Witbrock's Amiga Homepage. This is one of the best Web starting points for Amiga users, containing links to most of the other important resources, as well as some unique information of its own. It also has a link to the highly amusing Blazemonger homepage.

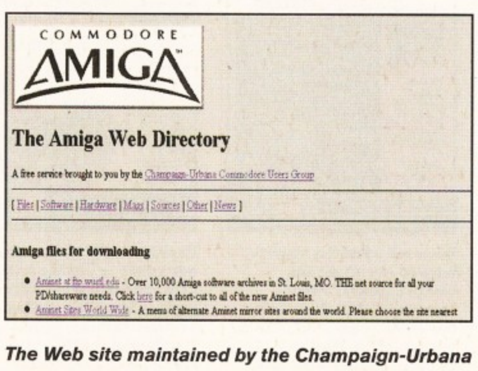
If you're not familiar with this revolutionary programming concept, check it out to see what you're missing. This homepage is another must for your browser's bookmark file (not least because it would be a pain to have to keep typing it in each time you use it) and can be found at:
http://www.cs.cmu.edu:8001/Web/People/mjw/Computer/Amiga/MainPage.html

All this technical information is all very well and availability of software is definitely a strong point of the Internet, but sometimes what it's best at is the dissemination of news, statistics, half-truths, rumours and out-and-out lies. If you're interested in gossip and rumours, as well as purely technical help, check out the Amiga Rumours Page set up by Elas Curn at:
http://www.daimi.aau.dk/~elascurn

While we're on the subject of personal homepages, the Geographical Amiga Users Home Page Internet List (GAUHPIL) is worth taking a look at. There are links here to the homepages of Amiga enthusiasts all over the world, including some of the most interesting and amusing Amiga pages anywhere on the Web. Even if you think your own area of interest involving the Amiga is pretty obscure, you may well be able to find someone who shares your exotic tastes. Check it out at:
http://namu19.gwdg.de/knoll/GAUPHIL/Main.htmlAmiga Newsgroups

Although FTP sites and Web pages can provide you with all the software that you need and some tips on various aspects of using the Amiga, the best place to go if you want advice on something, or just a chat about some aspect of the Amiga, is Usenet. There are newsgroups for programmers, containing source code in a variety of languages and there are newsgroups for people interested in the demo scene.

There are many groups dedicated to the discussion of various Amiga models and others dedicated to specific areas of Amiga

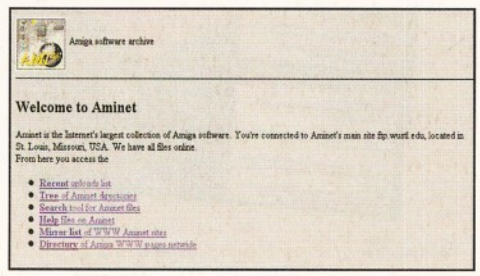


The Web site maintained by the Champaign-Urbana Users Group is a good place to go for technical help.

Amiga newsgroups

This is just a small section of all the Usenet newsgroups that have something to do with the Amiga. Note that not all of them exactly conform to the subject suggested by their name, so you may have to check out a few before finding what you are looking for.

alt.sources.amiga
alt.sys.amiga.demos
comp.sys.amiga.advocacy
comp.sys.amiga.announce
comp.sys.amiga.applications
comp.sys.amiga.audio
comp.sys.amiga.cd32
comp.sys.amiga.datacomm
comp.sys.amiga.emulations
comp.sys.amiga.games
comp.sys.amiga.graphics
comp.sys.amiga.hardware
comp.sys.amiga.introduction
comp.sys.amiga.marketplace
comp.sys.amiga.misc
comp.sys.amiga.multimedia
comp.sys.amiga.programmer
comp.sys.amiga.reviews
comp.unix.amiga
rec.games.video.cd32

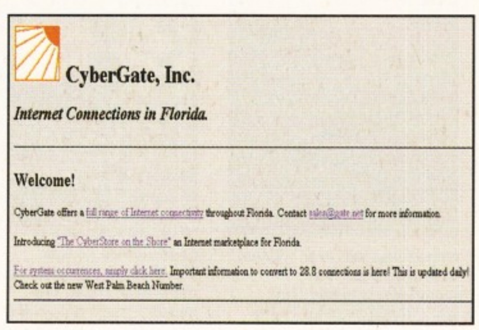


The Washington University Archive is home to Aminet and is definitely the first place you should look for Amiga software.

applications. There are even groups for buying and selling Amiga-related hardware and software.

Although the actual name of the group can only be taken as a rough guide to what the discussion in the group is actually about, there is almost certainly a group which will be relevant to your particular interests.

As you can see, even from the few examples that I have listed, the Amiga is alive and well on the Internet, despite the problems being experienced by Commodore. There is amazing support on the Net, considering that, technically speaking, you can't buy an Amiga at the moment, which just goes to show that, all being well, the Amiga still has a positive future. ■



The Playfield pages are a must for AMOS programmers. Look for them off this site.

Back issues

Did you miss out on some of those informative tutorials, reviews and features? Here's your chance to catch up.



Issue 48

Modem Supertest; interview with Premier Vision; six pages of graphics PD products; Squirrel, Pegger 2, Easy Ledgers 2, LightROM, Amiga Raytracing I & II, Pro Textures, Motion Master II and InfoNexus reviewed; Assembler, C, Photogenics and music tutorials; all about Fidonet; Amiga Answers; HelmLite on Coverdisk 1 and the usual handy PD programs on the ShopperChoice disk and much more................£5

Issue 47



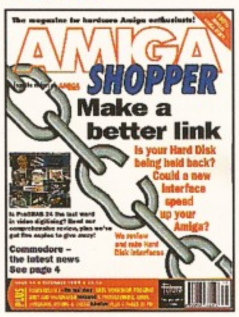
A special version of DICE 3.0 on Coverdisk 1 and oodles of useful files and programs on Coverdisk 2. Ramiga's Z5 system reviewed and a massive Supertest of programming languages. Plus more! £5

Issue 46



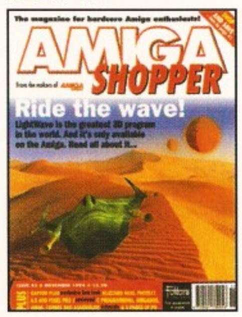
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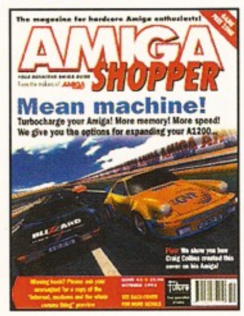
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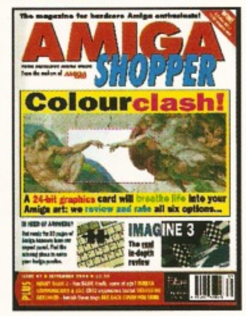
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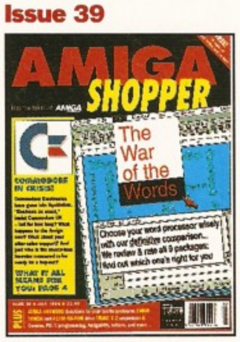
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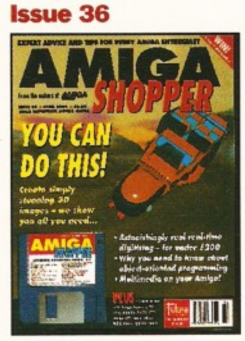
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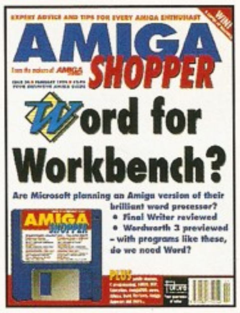
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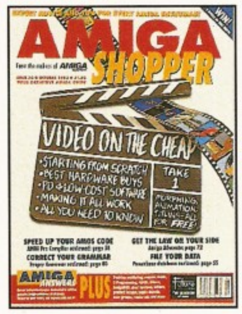
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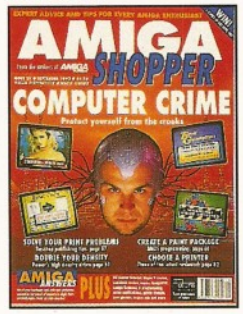
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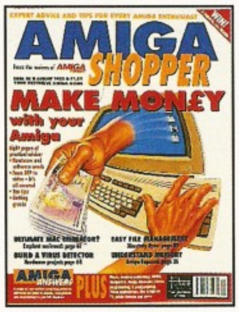
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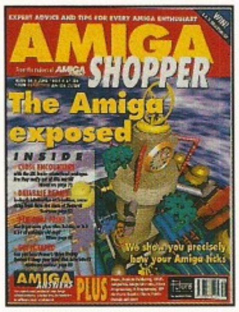
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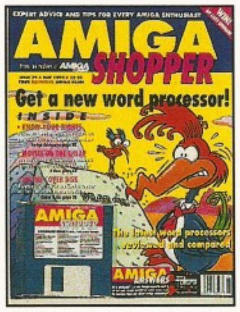
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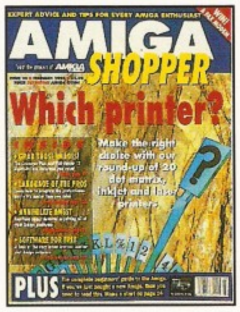
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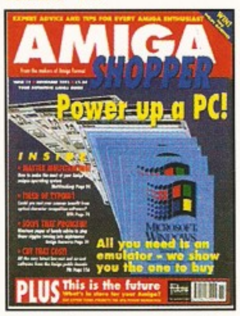
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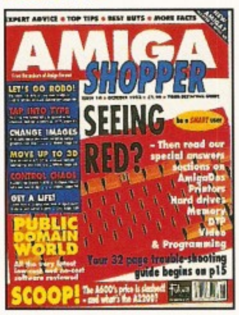
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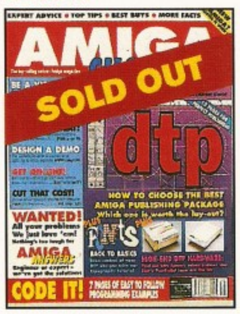
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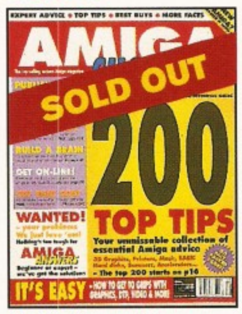
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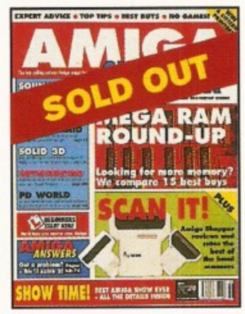
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Public Domain

If you're looking for software to keep track of your records, manage your finances and write the odd letter to the bank manager, the PD libraries have the answer. ***Jason Holborn*** *is your host.*

More than any other type of software, building up a respectable suite of business applications can be very expensive. Let's say, for example, that you wanted a word processor, a database, a spreadsheet and a home accounts package. If you were to buy these all commercially, you could quite easily spend £300+. OK, so you'd have some great software, but what about your bank balance? The first entry you'd have to make in your new home accounts package would be a substantial debit!

If you can live without the thrills of commercial applications, then you could save yourself a pretty penny by investing your money in some useful PD applications. They might not offer the latest features, such as AGA colour, outline font support and postscript output, but the amount of money you'll save more than makes up for such shortcomings, don't you agree?

Stocks

Fred Fish 990

Amiga owners who are 'big in the City' and into the thrill of buying and selling shares will love Stocks on Fish disk 990. Stocks is a stocks analysis program that provides powerful technical analysis using numerous statistical studies, including Candlesticks, traditional bar charts, three moving averages, MACD (whatever that is!), Stochastics, Gann, Trendlines and so on.

It generates buy/sell signals based on customisable trading rules and graphs daily, weekly and monthly charts using a simple ASCII data file format which is compatible with the on-line service CompuServe. Sell! Sell! Sell!

MCalc

Fred Fish 987

Fancy the ultimate in desktop calculators? MCalc is an MUI-based calculator similar to Jimmy Yang's popular PD program Calc 3.0. Although it lacks a data plotter (an unfortunate oversight), it does offer a very powerful history facility which enables you to insert expressions into calculations that have already been processed.

The program offers a wide variety of output formats and the look of the calculator can be customised considerably. What's more, the program fully supports ARexx, so there's no reason why you couldn't link its powerful number-crunching engine into anything from a text editor to a database.

PayAdvice

Fred Fish 950

Do you know how to check your pay slip? With a copy of PayAdvice running on your Amiga, you can leave all the hard computations to your machine so you've got time for more important things – watching TV, for example.

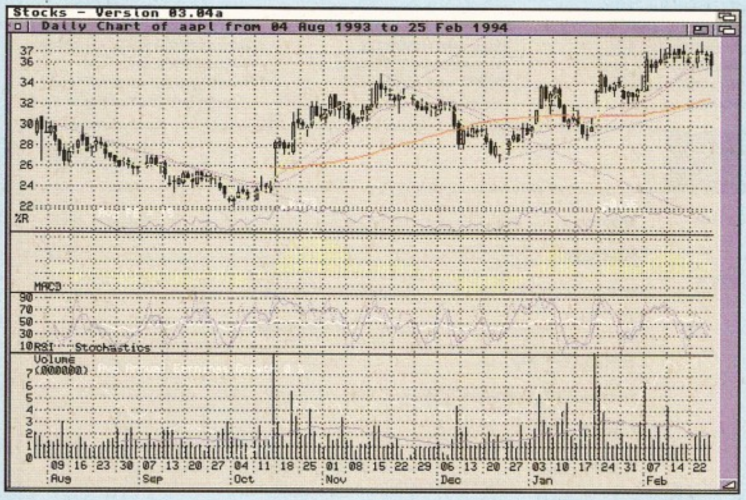
PayAdvice is a highly configurable program so it can be tailored to cope with any changes in UK tax laws. Although it's still no substitute for a decent accountant, at least you don't have to pay it vast amounts of money. Those in gainful employment would be advised to check it out.

AmigaDiary

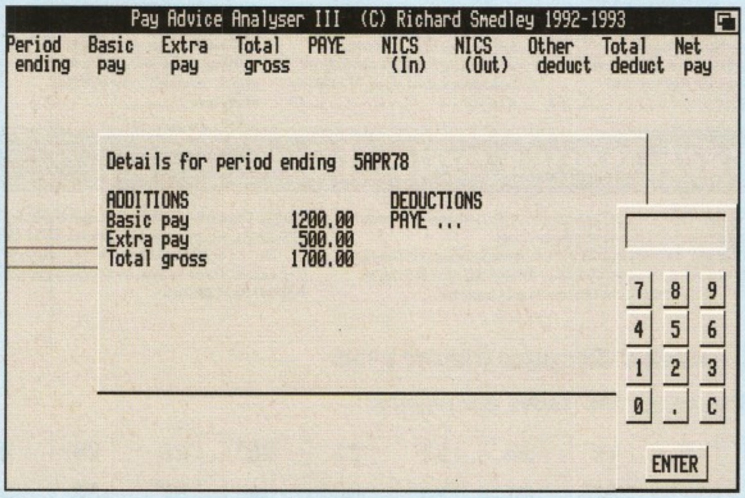
Fred Fish 959

Have you seen Lotus Organiser on the PC? If so, then you'll already know what a useful tool it can be. For the uninitiated, Organiser is a handy utility for desktop yuppies that lets you keep track of all your appointments with ease.

Not surprisingly, AmigaDiary borrows more than a few tricks from the opposition's favourite desktop utility, but without the high



Do you understand this complex graph? If so, then you're probably the sort of person that will benefit from Stocks.



Is the taxman taking you to the cleaners? How can you be sure? Don't be ripped off – keep track of your pay slips with PayAdvice.

Financial wizards

One of the most useful programs you could buy for your Amiga has to be a home accounts package. Such a program lets you keep track of your spending so you can see at a glance whether you can afford that new dress (!) that you've been promising yourself. We've scoured the PD libraries for what we believe to be the best PD home finance programs available. And, without further ado, here they are.

Filthy Lucre

Saddle Tramps PD

Written by the author of Epoch 6, Filthy Lucre is a home finance program that enables you to keep track of your pounds, shillings and pence.

Similar to Digita's commercial package Home Accounts, Filthy Lucre uses the same bank statement-like front end consisting of a list of entries complete with two columns containing debits and credits.

Like all good home finance programs, Filthy Lucre enables you to create categories which can be used to group entries (such as food and clothing, luxuries and bills) and it automatically keeps a running balance of your account, allowing you to see the state of your finances at a glance.

Budget93

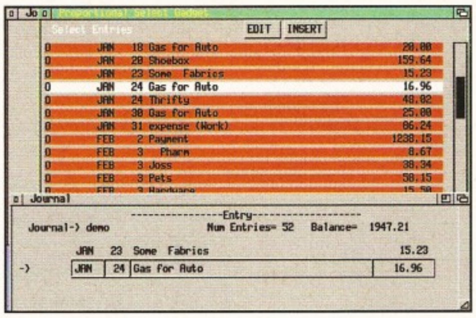
Fred Fish 884

Although this program's name does make it sound somewhat dated, Budget93 is as fresh as ever. It's a home budget program capable of maintaining checking, credit card accounts and personal budgets. The program features journal input accounting for each checking and card account, automatic distribution of journal entries into account categories, reports by month for journal and account categories.

ABank

Immediate Arts PD

ABank is a wonderful little home finance program from across the English channel that, although programmed completely in AMOS, boasts a full Intuition-like front end that's as good as any commercial offering in terms of ease of use and functionality. Like all good home accounts packages, ABank uses the same bank statement-like interface with each transaction listed in date order complex with either a debit or a credit which effects the running total. Unlike the other PD accounts packages on test, ABank is the only program which boasts graphing facilities that can display your finances in graphical form.



Keep track of the pennies and the pounds will take care of themselves with Budget93.

asking price. Although it doesn't handle addresses and so on, AmigaDiary concentrates instead on being a great little mouse-driven diary utility capable of storing all your personal events and appointments so there's no excuse for losing track of your friends' or relatives' birthdays!

Reminder

Fred Fish 945

Do you often forget important events or appointments? If so, then you need Reminder on Fish disk 945. Reminder is a utility to, er.. remind you about important events that take place in everyday life – birthdays, anniversaries and so on.

It consists of an event editor and a small program that you drop into your WBStartUp drawer (or run from your StartUp-Sequence). Every time you reboot or switch on your machine, this program checks its events database (which you define) and displays a requester if an event is due which you should be reminded about. A simple, but invaluable tool for all clock watchers.

MiserPrint

Fred Fish 928

Financially astute Amiga owners will love MiserPrint on Fish disk 928. It allows you to print up to eight normal pages of text on to one sheet of paper, saving paper and time in the process. MiserPrint uses the small built-in fonts (Courier and Letter Gothic) offered by HP DeskJet printers. As a result, owners of other printers need not apply.

UpCat

Fred Fish 939

Need to organise your disk collection? UpCat is a disk cataloguing program that reads all it needs to know from each disk automatically. Each disk's 'record' consists of the disk's directory structure, so you can see at a glance what's on a disk without having to manually input records.

The program provides a range of powerful features including the ability to display catalogues in a number of ways, user selection of files to be displayed (turn off all those .info files!), 32 user-definable categories, macros and a full ARexx interface.

TextPort

Fred Fish 886

Another text conversion tool worth investigating is TextPort on Fish disk 886. TextPort consists of a set of utilities – StripCR (strips the carriage return character from the end-of-line codes of MSDOS text files), AddCR (converts Amiga text files to MSDOS, but doesn't touch end of line codes that are already compatible), StripHR (strips out hard returns leaving paragraph formatting intact) and a utility that reformats word-wrapped documents to a different line length.

Spooler

Fred Fish 936

Multitasking is a wonderful thing, but even the Amiga forces you to wait when printing more than a couple of pages from your favourite word processor. This then is where Spooler comes in. As its name suggests, Spooler is a print spooler – that is, a utility that lets you print text files in the background.

You just have to redirect your printing to a device called SPOOL: and Spooler does the rest, leaving you to continue working. And the program even keeps you posted on its progress by displaying an on-screen report. A real time saver.

TxtCvt

Fred Fish 919

If you want to exchange text files with a PC-owning friend then you need TxtCvt on Fish disk 919. TxtCvt can convert PC text files stored in either MicroSoft Word (DOS and Windows) or Windows Write format to standard Amiga ASCII files which can be read into any Amiga word processor. Although it doesn't convert ASCII files back to MS Word or Write format, it still acts as a valuable bridge between the two formats.

PhoneDir

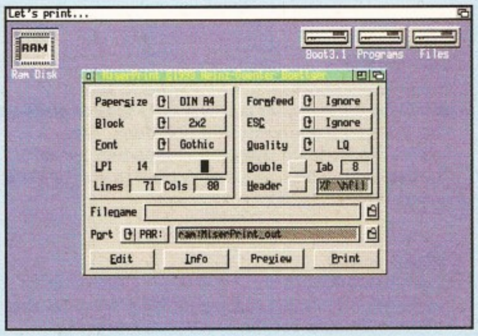
Fred Fish 944

If you're involved in any profession which requires you to spend a lot of your time phoning around various contacts, then you'll adore PhoneDir.

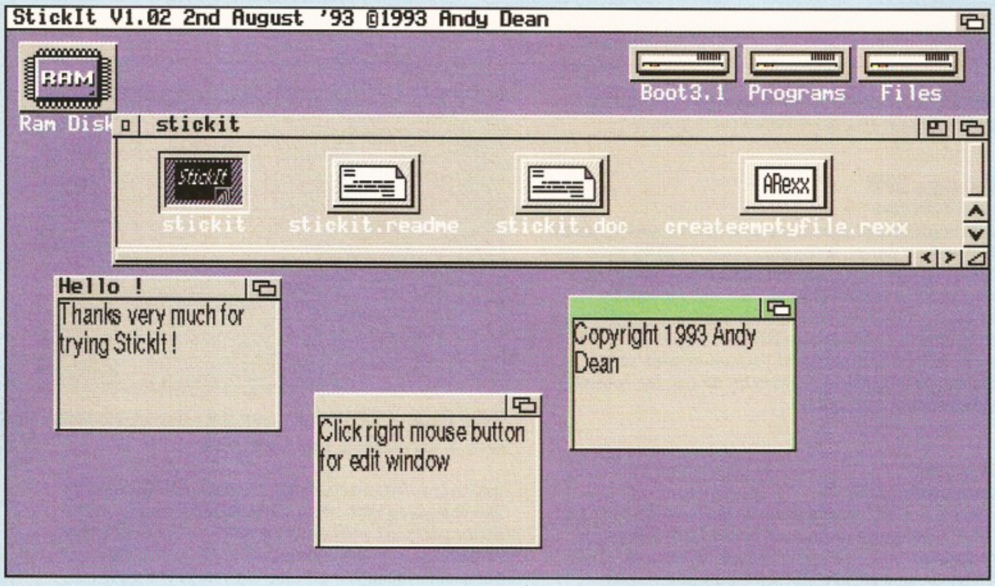
PhoneDir is a phone directory utility. OK, I know – they are ten a penny in the Public Domain libraries, but what makes this one *special* is that it's a pop-up program. What that means is that it can stay hidden until you need it.

Then, when you *do* need it, you simply select its name from the Workbench tools menu and it appears on the screen. It couldn't be simpler. The program can handle names, addresses, phone numbers and E-mail addresses with ease.

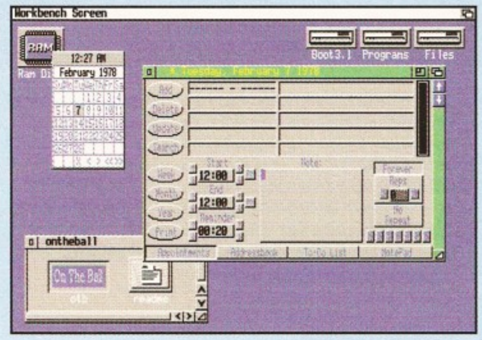
PhoneDir also offers an automatic phone dialler that generates the tones required by



MiserPrint lets you squeeze up to eight pages of normal text on to a single sheet of paper.



Now you can stick PostIt notes all over your desktop without worrying about the effect on the environment.



Are you on the ball? You will be if you treat yourself to Software Pure Logic's brilliant address book/scheduler package.

85

the BT telephone network. In all, PhoneDir is an absolute must.

StickIt!

Fred Fish 913

StickIt! is a replacement for the good old PostIt note that you'll find stuck to the monitors of most professional computer users. The program allows you to stick notes on to your Workbench screen which are displayed every time you reboot, therefore reminding you of things that need to be done.

The program allows an unlimited number of notes on-screen at any one time (although your Workbench will start to get a little crowded after a while!), user definable text/background colour, user definable delay at startup to avoid disk thrashing and user definable filename for note information.

OnTheBall

Fred Fish 890

OnTheBall is a demo version of a commercial desktop aid that contains a calendar, appointment manager, address book and so on.

Features include calendar print with adjustable week, month and yearly schedules, search forward and backwards through

89

Charts and graphs

Accountants may love sifting through pages upon pages of complex figures, but they're not much fun to the rest of us. So how do you get complex numerical information across without boring your readership to tears? You draw a graph, of course! Better still, why not let your Amiga do it for you by using a PD data plotting program. Here's a guide to the best available.

ComGraph

Fred Fish 931

ComGraph is a very powerful function plotter of the type that would have made most people's maths homework a breeze. The program lets you administer up to 10 functions at the same time and then plot them and their derivatives, zoom and calculate symbolic derivatives, zero selected points, extreme points, turn and saddle points, poles and gaps (gulp!).

You can even calculate integrals (integral area, curve length, rotation volume and surface etc).

The program also includes a full scientific calculator, linear equation solver, prime factor reduction and comprehensive printing facilities. This is definitely the king of all function plotters.

Kurve

Fred Fish 778

Kurve is yet another function plotting tool which provides a very fast and easy way of plotting and analysing mathematical functions. The integrated function compiler makes this one of the fastest function plotting programs you're likely to encounter.

MultiPlot

Fred Fish 918

MultiPlot is an intuitive data plotting program that features flexible input options, arbitrary text addition, automatic graph scaling, zoom and slide with clipping at boundaries, a range of output file formats and professional quality printed output.

Workbench printers are supported via transparent use of the PLT: printer device although Postscript and HP LaserJet printers are supported directly by MultiPlot's own printing routines.

JcGraph

Fred Fish 926

JcGraph is a very powerful business graphing utility, complete with a full Intuition user interface. The program can easily generate bar, line, plane, stack and block graphs in two and three dimensions from your data.

Other features of JcGraph include a powerful rotation facility which can be used to rotate your graph around the X, Y or Z axis in real-time, full on-line help, professional-looking 2D and 3D output and an ARexx interface which offers 40 or more commands.

JcGraph can also output graphs in a variety of different file formats including EPS, 3D Geo (3D Studio), IFF and AegisDraw2000 format.



JcGraph produces results of professional quality that rival anything that even the most powerful commercial package can produce.

Railway Simulations for the Amiga



These are realistic railway simulations, acclaimed by customers in over 20 countries, many of them working railway staff; now almost the whole range is available for the Amiga. They do not offer arcade-style graphics, simply realistic displays based on those used in modern signalling centres. Compatible with Workbench 1, 2 and 3, and hard disk compatible; minimum of 1Mb required.

Penzance 1955 - experience again the fascination of steam. Includes managing the shed (83G) and preparing and selecting the right locomotive for each train, as well as planning the use of platforms. £15.95

Birmingham 1982 - A real challenge! Five routes to be handled in 12 platforms, some of which can hold two trains. Your task is to fit a 15 minute interval local Cross-City service, and other local services, in between main-line services on the former Midland and North-Western routes, wth the added complication of loco-changing on the cross-country routes to the south and west. £15.95

NEW! Birmingham 1993 - Similar to the 1982 version (see above), but with the interim Cross-City service operating - electric only north to Litchfield, with diesel units maintaining the service south to Longbridge and Redditch. More HSTs on the cross-country routes, but still plenty of loco-changing. £15.95

Special offer: both Birmingham 1982 and 1993 for only £23.95.

Prices shown above include VAT, postage & packing (UK or overseas). Please send payment with order, or quote full credit card details (including expiry date), **and remember to state your computer type.**

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Over 70 railway simulations available now for the Amiga - SAE for complete list (or receive one with your first order).

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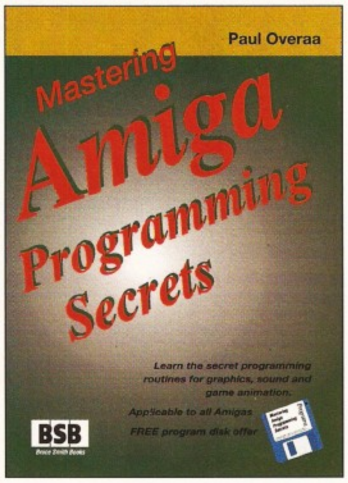
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86 appointments, nine repeat modes, a reminder with snooze function, an address book that can generate mailing labels and also autodial telephone numbers, 'to do' lists, a fully featured 'notepad' and full ARexx support.

APrf

Fred Fish 875

APrf is a print utility which boasts a full Intuition interface, a powerful print previewing option, page selection, line numbering, multi-column text flowing, customisable headers and footers, an ARexx port and much more besides. An invaluable tool for users of PD word processors.

ADM

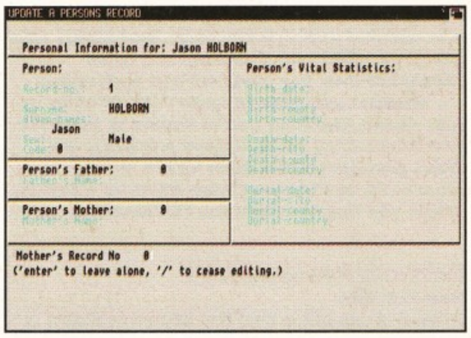
Fred Fish 847

ADM is a comfortable and flexible address database which features a font-sensitive front end, full Commodity an AppWindow support, an ARexx port, public screen and is fully controllable from the keyboard. It allows for user flagging (grouping), E-mail support and a freely configurable label printing facility.

It can also fill out letter forms, call your word processor (via ARexx), perform print remittance orders, dial your modem and it even has on-line help. The only limitation is that the program only runs on machines equipped with Workbench 2.0 at least.

Trace your roots!

Most of us have a pretty good idea of who's who in our immediate family, but do you know who your great, great, great, granddad's brother's first wife was? Probably not. Problem is, keeping up to date with immediate relatives is hard enough, so it's no wonder that most of us lose track of our roots. Computers, on the other hand, are great for keeping track of complex information, so it should come as no surprise that the PD libraries offer a number of genealogy databases.



Can you trace your family tree back further than a couple of generations? Although it won't do the research for you, AGene will handle all the hard work of organising that information.

AGene

Fred Fish 702

Disk 702 of the Fred Fish Public Domain collection contains a demo version of this licenseware genealogy database written by Mike Simpson. Although this demo is effectively fully working, the author has restricted the demo to a maximum of 200 people, 70 marriages and there's no on-line help – apart from that, everything else works.

AGene includes a text editor to add freeform reports to records and it allows you to show digitised pictures (a bit like a digital photo album) directly from within the program. This latest version also includes ordinances for Church Of Latter Day Saints users. Pedigree charts and family group sheets (amongst others) can quickly and easily be printed from within the program.

Scion

Cynostic PD

Scion is a genealogy database designed specifically for handling family trees. It is very simple to use because most of the work is concentrated around just two windows – a personal details window (holds information on individuals – birth date, place and sex etc) and a family details window (holds information on marriages and offspring).

You can also attach an IFF image to each personal record in a similar way to AGene. What makes Scion that bit better than AGene, however, is its user interface – although both programs are very similar, Scion's Workbench 2.0 compliant front end is more responsive and better designed. Scion is a faster program too, because it's programmed in assembler rather than AGene's GFA Basic. The final nail in the coffin for AGene, however, is the fact that Scion is complete – there's no restriction on the maximum number of people you can add to Scion's people database.

DiskPrint

Fred Fish 844

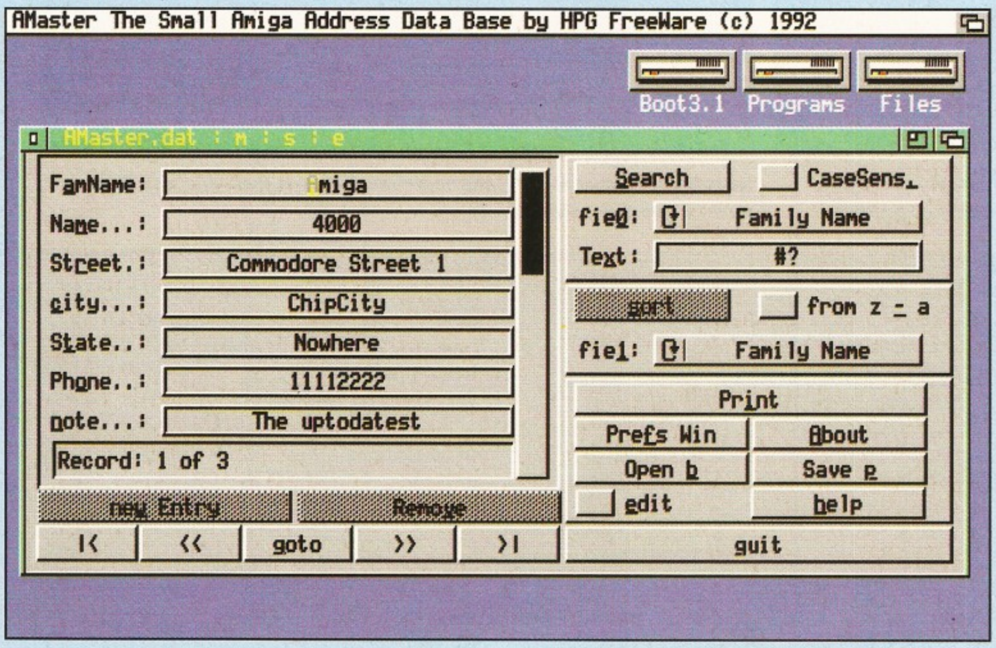
DiskPrint is a label database that can print and store disk labels for 3.5- and 5.25-inch disks.

Although the author designed the program primarily as a combined database and print utility for floppy disks, it includes easy to use label library functions (like printing labels for a whole floppy disk in one turn, or multiple print of one label) and labels for most floppy disks – all are available within a couple of mouse clicks. Features include a fast search routine, a user definable label layout, different sized labels, an Intuition based disk directory scanning and a whole lot more.

DFA

Fred Fish 874

Public Domain author Dirk Federlein is convinced that his PD address book utility is the best available. DFA is short for Dirk Federlein's Addresses and features E-mail support, pulse dialling, different types of printing addresses, full commodity support, AppIcon support, font sensitive windows and a full ARexx port.



Never lose track of important addresses with AMaster, a powerful address database on Fish disk 827.

AMaster

Fred Fish 827

AMaster is an address database program which features comprehensive sort, search and selections after each field. The number of entries is limited only by the amount of free memory. The program features plenty of printing options including a print to screen function.

Also included in AMaster is full on-line help and the program is fully font sensitive and therefore runs happily on high resolution displays.

Epoch 6

Essex Computer Systems

If you're looking for the computer equivalent of a FiloFax, then look no further than Epoch 6 – the most powerful PD personal organiser available.

Epoch 6 is a powerful desktop address book complete with a 1299 year diary/calendar/scheduler which lets you keep track of all those important telephone numbers, appointments and so on. What makes Epoch 6 so impressive, however, is its great cross

Word power

If there's one application that every computer user will find useful, it has to be the humble word processor which has probably sold more computers than any other serious application.

Whether you want to write the odd letter to your Auntie Mertle or you're hoping to pen your next best-selling novel, a word processor will make your life considerably easier. Word processors don't come cheap, however – that is, unless you buy one from the PD libraries.

EdWord Professional

Fred Fish 924

EdWord is one of the best text editors available in the PD libraries. Although it doesn't quite match up to commercial word processors, EdWord offers some unique features, such as the ability to hold up to 15 documents in memory at once, automatic text casing (which is ideal for programmers), full macros support, powerful text searching, vertical blocks and word count.

The program's front end can be customised too with the choice of 12 different screen modes. As well as plain ASCII text files, EdWord can also edit binary files, so there's no reason whatsoever why the program can't also be used as an alternative to a real binary editor like NewZap.

GoldEd 2

Fred Fish 908/909

GoldEd 2 is a GUI-based text editor with more wonderful features and options than you could shake a stick at.

Highlights include a full Workbench 3.0-compliant front end (AppWindows and MenuHelp etc), paragraph folding (with unlimited nesting of folded paragraphs!), fully customisable pull-down menus, a powerful macro recorder, an ARexx port with 250 commands, hotkeys, automatic phrase completion from a definable dictionary, an unlimited number of windows, an ASCII character selection window, autosave, on-line AmigaGuide-based help, insertion/removal of columns, smart indentation (just the thing for C programmers!), DICE compiler front end, clipboard support and a kitchen sink, er... lots more besides.

GoldEd 2 is undoubtedly the best PD text editor available.

TkEd

Fred Fish 781

TkEd is a very friendly intuition-based ASCII text editor complete with both English and German user interfaces. It can read text files packed with PowerPacker, has user-definable menus, a comfortable ARexx interface (with 109 commands), a variety of error handling tools for programmers, macros, undo, wordwrap and it supports foldings. It has an on-line help mode and many other features. TkEd is fully reentrant and can be made resident. It's Kickstart 1.3/2.04 compatible, supports the new ECS-screen-modes, an application window and even checks itself for link viruses.

TextEngine 4.1

Cynostic PD

Most of the PD word processors aren't really word processors at all – GoldEd 2, for example, is really a text editor aimed at programmers that just happens to feature word processor-like functions such as word wrapping. TextEngine 4.1, on the other hand, was designed as a word processor from day one. Boasting a front end that is pleasantly simple to use, well presented and well designed, TextEngine is a no-nonsense word processor that features all the usual array of document editing tools such as search and replace, block cut and paste, full printing support and a 36,000-word dictionary. Although it doesn't support picture importation or outline fonts, TextEngine scores well for raw text processing.

MegaEd

Fred Fish 743

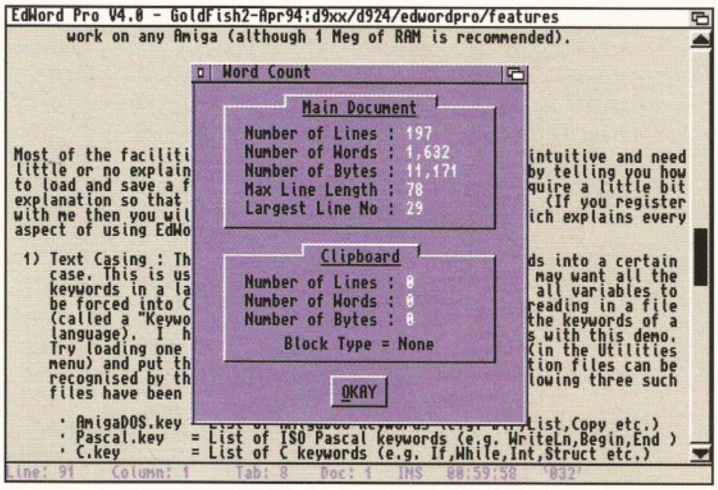
A powerful text editor with lots of features, some of which can't be found in rival programs. The program features an integrated text database, extensive formatting/printing functions, a powerful macro language, ARexx port, keyword indentation, multiple blocks/marks, key/menu macro recording, a user friendly front end and it can be configured for lots of languages/compilers.

ISpell

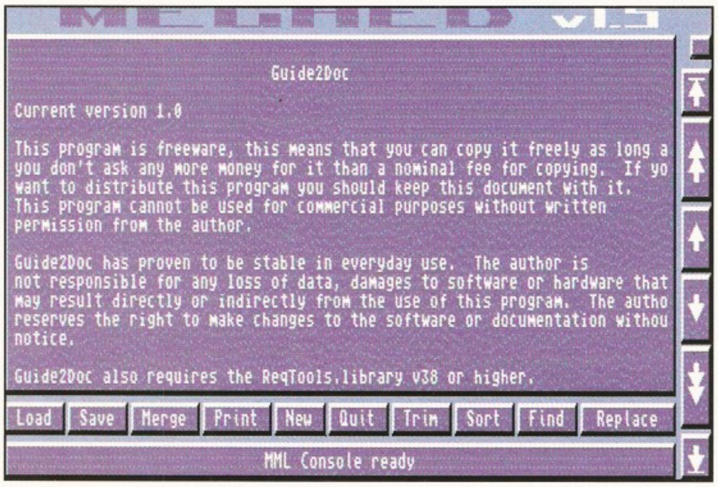
Fred Fish 774

ISpell is an 'Amigatised' (as the author puts it!) port of the Unix freely distributable interactive spelling checker. The program offers two major modes of operation – original interactive mode which allows the user to spell-check and correct a text document and ARexx Server mode which allows you to hook ISpell up to a text editor or indeed any program that needs a spell-checking facility.

Other features include a regular expression look up of word patterns in ARexx Server mode. The program comes complete with ARexx macros for GUISpell (included), CygnusEd, Mg, TurboText, GNU Emacs, VLT and Wshell.



Although designed as a text editor for programmers, EdWord Professional provides a number of features which also make it a useful word processor.



What MegaEd loses in the looks department, it more than makes up for in terms of raw text editing power.

referencing feature which lets you cross reference information between the program's various modules.

You could, for example, cross reference an appointment with the address where the appointment is to take place. When that appointment is reported, you can instantly jump to the appropriate address.

DocPrint

Fred Fish 836

DocPrint is designed as a 'paper saver' for users who own printers that use fanfold (tractor fed) paper. The program can print the odd and even pages of a document separately complete with page numbers and header/footers, allowing you to print on both sides of the paper.

It can be called from Workbench or via the CLI with textname as an argument or from within Directory Opus. DocPrint can also print PowerPacker files.

Convert

Fred Fish 801

Convert is a very handy application that can quickly and easily convert numerical values between international, imperial and US systems of measurement. It does this in 12 different fields of measurement including area, capacity, density, energy, fuel consumption, length, power, pressure, speed (velocity), temperature, volume and weight.

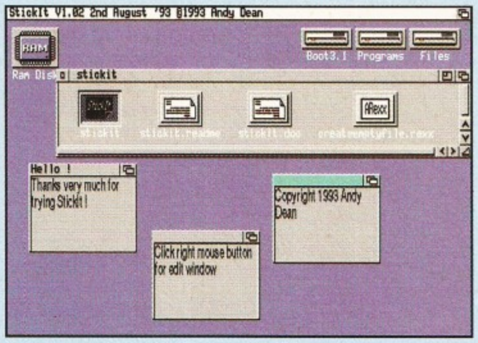
Add to this the program's flexible and easy to use Intuition-based front end and you need never faff around with a calculator again. Very handy, indeed!

WFile

Fred Fish 776

WFile is a small, but useful tool to convert ASCII files between different Operating

▶ 93



It may not look as flash as ProCalc, but FHSpread is a spreadsheet program that means business!

90 ▶ Systems. The program converts foreign symbols and adapts linefeed codes.

It can also be used to expand tabs to multiple spaces or vice versa. It has built-in templates for the conversion of text between Amiga, MSDOS, OS/2 and UNIX systems. Profiles can also be used for common adaptations. This new version contains new templates and the memory management system has been revised and optimised.

LeverNag

Fred Fish 838

LeverNag is designed to remind you of events before you miss them.

Events can be scheduled to occur once or can be repeated daily, weekly, monthly or annually. You can be alerted of the event in a number of ways ranging from a screen flash to a message requester.

PaperBack

Fred Fish 749

PaperBack enables you to generate a double-sided printout from a single-sided document. Two output documents are created – a set of odd pages and a set of even pages.

The odds set can be printed on single sheet or tractor fed paper, reversed and re-inserted in the printer and the even set is then printed on the reverse side. Page sizes are all fully editable by the user along with many other parameters.

The program handles pre-defined page breaks eloquently. In all, PaperBack saves paper and storage space.

FHSpread

Fred Fish 966

This fun little PD spreadsheet program may not match up to the likes of FinalCalc or ProCalc, but its heart is definitely in the right place. Modelled closely around SuperCalc on the PC, FHSpread is a no-nonsense spreadsheet that is designed with Workbench 2.0-based Amigas in mind.

Like all good spreadsheets, it fully supports a vast array of functions which are used to program your worksheets. Although the user interface looks a little amateurish, the level of spreadsheet power that this program has to offer can't be sniffed at. Definitely a program worth investigating. ■

Database dazzlers

If the word processor is the first 'serious' program that new Amiga users buy, the common database has to be the second.

A database can be a tremendously useful addition to your software collection. For the uninitiated, a database is a bit like having a filing cabinet on your computer that can organise itself automatically – all you have to do is to tell the database what type of data you want it to store and it does the rest.

Once your database is set up, you can enter information and then edit and extract it at will. Databases have always been a popular project for would-be programmers so it should come as no surprise that the PD libraries are awash with the blighters.

Here's a selection of the best...

BBase III

Fred Fish 998

BBase III is an easy-to-use, yet full-featured, database program that runs on any Amiga equipped with Kickstart 1.3 or better. The program offers a number of impressive features including the ability to search or sort on any defined field, print mailing labels from database data, deletion and undeletion of records, mail merge, report generation and so on.

What's more, BBase III enables you to fully control the format of your databases, so it can be used for handling addresses, tape or video collections, recipes or indeed anything else that needs organising. Although it is still essentially a 'flat file' database (i.e. not relational), BBase III is more than adequate for most applications.

DDBase

Fred Fish 956

There's no prizes for guessing that DDBase is a database program which can be used to keep track of anything from names and addresses, record collections, video libraries to the membership details of a small club.

The program can handle up to 1,500 separate records per database file with 20 fields per record and can import database files from SuperBase. Most impressive of all is the program's powerful form editing tools which allows you to brighten up your database layouts with box, circle and line drawing functions. Like all good databases, DDBase also provides full search facilities.

VideoMaxe

Fred Fish 940

Databases are great for keeping track of video collections, but there's nothing like having a program that has been specifically programmed for your particular needs. In the case of video collecting, that program is VideoMaxe.

Boasting a full Workbench 2.0+ front end, VideoMaxe lets you quickly and easily compile a database of all your videos complete with information on the director, major stars and indeed any other interesting facts that you'd like to add.

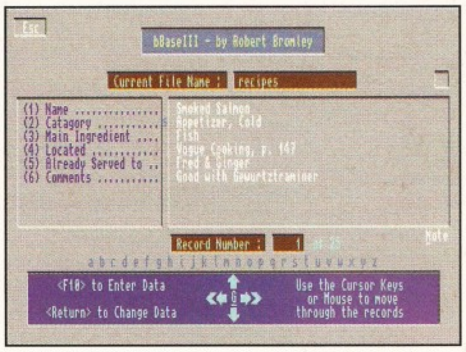
Once you've compiled your video database, you can then quickly and easily find the tape you want by feeding in to the program the contents of one or more key fields (the director's name, for example).

QuickFile

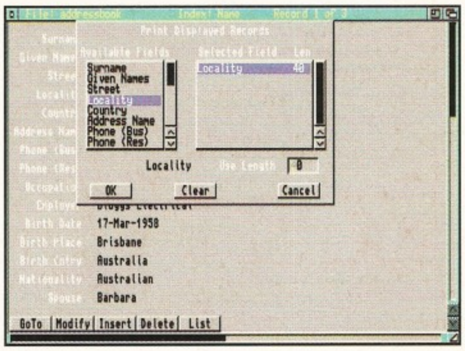
Fred Fish 919

QuickFile is a flexible, fast and easy-to-use flat file database which uses random disk access with intelligent buffering to minimalise disk access plus multiple indices for fast access to records. Other features include form and list-style screens and reports and fast sorting and searching of records. Files are quickly and easily defined and fields can be added, changed or deleted at any time.

This latest version supports up to 255 fields per record, date data types and ASCII file import and export functions. For simple database needs, QuickFile hits the mark.



Keep track of all that important data with a copy of BBase III on Fred Fish 998. Remembering names and addresses has never been so easy.



Organise your life without breaking the bank with a copy of QuickFile. QuickFile is a flexible, fast and easy-to-use flat file database.

AmigaBase

Fred Fish 901

AmigaBase is a hierarchical, programmable database that runs under Workbench 1.3 or 2.0 Amigas. The program boasts a full Intuition front end, multiple data display methods, dataset (field) filtering, searching and printing and much more besides.

According to the author, AmigaBase can be set up to handle just about any database application thanks to its programmable nature. Datatypes can be integer, real, Boolean, string, memo (text), date or time and the number of fields is limited only by the available memory.

ButlerJames

Fred Fish 856

It may have a strange name, but there's no escaping the fact that ButlerJames is a great little database program. Designed specifically for address management, it can also be used to store other types of data.

The program is hotkey activated and it allows you to send selected groups of data directly to the keyboard input stream or printer which is very useful as it helps to avoid having to continuously enter the same address over and over again into your word processor.

PD houses

This is your comprehensive guide to where to go to find the Public Domain program of your dreams.

17 Bit Software, 1st Floor Offices, 2-8 Market Street, Wakefield, West Yorkshire, WFI IDH. ☎ 0924 366982, fax 01924 200943. Catalogue 50p or free if you send an s.a.e. Accept phone orders, credit cards and direct debit. Open 8am – 8pm Mon – Thur, 9am – 5.30pm Fri – Sat.

A1200 Only PD – BJ Cowdall, 23 Barn Way, Cirencester, Gloucestershire GL7 2LY. Try to obtain all AGA PD and WB3 utils etc. Catalogue is £1 or send a disk and an s.a.e. No phone orders or credit cards. For a printed catalogue just send an s.a.e. Disks are £1 each. Frequent special offers!

Active Software, PO Box 151, Darlington, County Durham DL3 8YT. ☎ & fax 01325 352 260. EMail Bux8@unn.ac.uk. Specialise in professional collections, compile disk packs, essential Aminet compilations and sound samples. Catalogue 50p. No phone orders, credit cards or direct debit. Open 9am – 9pm. Discounts to User Group members.

Activity Software, 393 Doncaster Road, Rotherham, South Yorkshire, S65 2UF. ☎ 01709 377730. Catalogue 1st class stamp. Do not accept phone orders, credit cards or direct debit. Open from 9am – 5.30pm Mon to Sat. Additional info, also stock PC shareware. Crazy Joe's, 141 Effingham Street, Rotherham.

AGA Exchange, 18 Brownshill, Cromer, Norwich, Norfolk, NR27 0QA. specialist areas: AGA PD/shareware full advice service, PD exchanges, Laser printing service. Catalogue free (with s.a.e. + disk). No phone orders, credit cards or direct debit.

AmiCom PD, 22 Church View Close, Havercroft, Wakefield, WF4 2PH. ☎ 0226 723807 ask for Kevin or Ian, Catalogue disk £1. Accept phone orders if buyer collects. Give special discount on large orders. Frequent special offers. Free catalogue updates.

Amiganuts, 3 Spring Road, Bitterne, Southampton, Hampshire, SO19 2BH. Specialist areas: Acc, Accm, Words 4, general software and titles produced by M. Meany. Catalogue, 50p + s.a.e. Do not accept phone orders, credit cards or direct debit. Open 24 hours a day, 7 days a week.

Anim 1 PD, PO Box 128, West Malling, Kent, ME19 6UA. ☎ none. Specialise in Animation graphics. Catalogue cost 60p. No phone orders, credit cards, or direct debit.

Asgard Software, 20 Langdale Drive, Flanshaw, Wakefield, W Yorks WF2 9EW. ☎ 01924 363 059. Specialise in all types of Amiga PD (approx. 4,000 disks in library). Catalogue is £1. No phone orders, no credit cards or direct debit. Open 24 hours.

Barkin Mad, 18 Rhyber Avenue, Lanark, Lanarkshire, ML11 7AL. ☎ 01555 663530. Catalogue FREE when sending a s.a.e. and/or disk. Accept phone orders. Do not accept credit cards or direct debit. Open 24 hours – 7 days. We fully encourage swapping PD as well as selling to try to spread good quality PD as far as possible.

Beats Brothers PD, 6 Brownings Close, Pennington, Lymington, Hampshire, SO41 8GX. Specialist areas: Amiga games and utilities. Catalogue £1 inc p&p. Do not accept phone orders, credit cards or direct debit. The catalogue disk will be released in August 1994.

Belshaw's Computers, 55 Balderton Gate, Newark, Notts. ☎ and Fax 01636 72503. Catalogue FREE. Accept phone orders. Do not accept credit cards or direct debit. Open 9.30am to 5.30pm. Retail outlet, customers can call at shop.

BGPD, 6 Peter Street, Whitehaven, Cumbria, CA28 7QB. Specialist areas: can supply any title reviewed in any Amiga magazine. The latest Assassin collections. Catalogue 50p or send a blank disk. Do not accept phone orders, credit cards or direct debit. Also many second hand (commercial) games + utilities and a PD document printing service.

Blitz Basic PD, 30 Riding Dene, Mickley, Northumberland, NE43 7DL. Specialise in Blitz Basic created PD. Catalogue is £1.50. Open 9am – 5pm. Orders processed within 48 hrs. Also produce a diskmag for Bliz users.

Chris's PD, 22 Merryfields Avenue, Hockley, Essex, SS5 5AL. ☎ 01702 203826. Chris's PD disk catalogue 70p, 2 disk Fred Fish catalogue £1.40, both Chris's PD & Fred Fish disk catalogues £2.00 or Free if you send s.a.e. with sufficient disks. Do not accept phone orders, credit cards or direct debit. Open 6pm–8pm weekdays, 10am–4pm Saturdays. All disks are virus free & error free. All disks only 80p each.

CAM-PD, 26 Crowland Way, North Arbury, Cambridge CB4 2NA.

Club 1200, 57 Europa Rd, Lowestoft, Suffolk NR32 4BQ. ☎ 01836 328 263. Specialise in AGA and WB3 only. Catalogue is £1. No phone orders, no credit cards or direct debit. Open 9am – 7pm Mon – Fri. One disk free for every five bought.

CPU Computer PD Library, 120 High Street, Chatham, ME4 4BY. ☎ + Fax: 01634 826 218. Catalogue cost £1. Open 9.30am – 5pm Mon – Sat.

Craig Holmes Non-Profit PD, 23 Rocester Avenue, Wednesfield, Wolverhampton, West Midlands, WV11 3AU. ☎ 01902 305209. Specialist areas: latest virus checkers. Catalogue, free listing upon request. Do not accept phone orders, credit cards or direct debit. Open, mail order only – but phone enquiries 9am – 8pm, 7 days a week. Additional info, all discs £1.75 inc p&p. Bulletin board available on Sunday 2pm – 5pm only.

Dead Budgie PD, 53 East Street, Ashburton, Devon TQ13 7AQ. 70p for two disks. Don't accept phone orders, nor credit cards or direct debit. They accept postal orders or cash – cash is sent at your own risk however.

Deck The Ripper of NFA PD, 173 Trevind Drive, Rushey Mead, Leicester LE4 7TR. ☎ 01162 661 610. NFA productions are setting up a network of PD houses across the UK in an effort to get PD to the public as cheaply as possible.

Epic Marketing, Victoria Centre, 139 Victoria Road, Swindon, Wiltshire, SN2 3BU. ☎ 01793 490988, Fax 01793 514187. Specialists areas, desktop video fonts and tutorials. Catalogue £1. Accept phone orders and credit cards. Open 9.30am – 5.30pm Mon to Sat.

Essex computer systems, Freepost CL2875, Southminster, Essex, CMO 7BR. ☎ 01621 778778. Specialise in Licenceware (central licenceware register C.L.R. organiser). Catalogue FREE. Phone orders accepted. Accept credit cards/direct debit. Open 10am – 6pm Mon to Fri. Members of the professional standards for software distribution.

Eurodisk PD, 71 Phillimore Place, Radlett, Herts WD7 8NJ. Catalogue cost £1 (free if disk and s.a.e. is enclosed).

F1 – Licenseware, 31 Wellington Rd, St Thomas, Exeter, Devon EX2 9DU. ☎ 01392 493 580. Catalogue is 50p. No phone orders, no credit cards. Open 9am – 9pm.

Fantasia PD, 40 Bright Street, Gorsehill, Swindon, Wiltshire, SN2 6BU. ☎ 01793 610134. Specialist areas: Slideshows, 3D rendered images (jpeg) serious software. Catalogue .70p + .40p p&p or blank disk + s.a.e. Accept phone orders. Do not accept credit cards or direct debit. Open 24 hours.

Five-Star PD, 48 Nemesai, Amington, Tamworth, B77 4EL, U.K. ☎ 01827 68496. Specialist areas: education utilities, DTP games. Catalogue .70p + Free p&p. Do not accept phone orders, credit cards or direct debit. Open 9am 0 2pm 7 days a week. All disks 99p + free disk when buying 10 or more.

GD PD, 99 Turnberry Rd, Great Barr, Birmingham B42 2HP.

G.V.B. – PD, 43 Badger Close, Maidenhead, Berkshire, SL6 2TE. ☎ 01831 649386 (anytime), ☎ 01628 36020 (after 6pm). Specialist areas: all types. Catalogue 3 x 1st class stamps. No phone orders, credit cards or direct debit. All disks £1 inc p&p with a valid account number, first disk £1.50.

Gothik, 7 Denmark Road, Northampton, NN1 5QR. ☎ 01604 22456. Specialist areas: Blitz Basic 2 programming + PD. Do not accept phone orders, credit cards/direct debit. Open Sat 10am to 5pm. We were Batty's PD Club, but are now concentrating on Blitz Basic 2 users.

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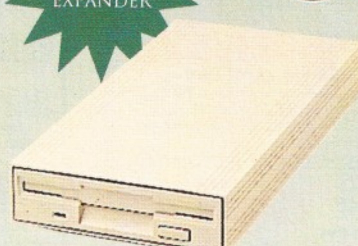
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Contact Andrew Mackie, 52 Birniehill Ave, Bathgate, W Lothian EH48 2RR.
Cowdenbreath Amiga FX.
Contact Ryan Dow ☎ 01383 511 258.
Bo'ness C.P.C. User Group.
Contact Alistair Lyons, 18 Braehead, Bo'ness, West Lothian, Scotland EH51 9DN.
Dundee Tay-Soft PD Club.
Contact Dave Thornton ☎ 01382 505437.
Dunfermline Dunfermline Sound & Vision Club.
Contact Stan Reed, 7 Maxton Place, Rosyth, Dunfermline, Fife KY11 2DG.
East Lothian Amiga Club (every 2nd week).
Contact Derek Scott ☎ 01620 823137, (Saturday 1–4pm). Bridge Centre, Poldrate, Haddington, East Lothian, Scotland.
Edinburgh Amiga Club.
Contact Jim Gifford ☎ 0131 658 1244, 30 Moredunvale View, Edinburgh EH17 7JT.
Edinburgh Edinburgh Amiga Club.
Contact Stephen Fradley ☎ 0131 555 1142.
Edinburgh Edinburgh Amiga Group.
Contact Neil McRea, 37 Kingsknowe Road North, Edinburgh EH14 2DE.
Glasgow Amiga Helpline.
Contact Gordon Keenan, Amiga Helpline, 6 Skirsa Square, Glasgow G23.
Hawick Borders Teri Odin BBS.
Contact Derek Scott ☎ 01450 373071. 26D Harden Place, Hawick, Borders, Scotland.
Inverness Highland PD.
Contact David Paulin ☎ 01463 242431.
Johnstone Using AMOS.
Contact Colin McAllister ☎ 01505 331342.
Perth Perth and District Amateur Computer Soc.
Contact Alastair MacPherson, 137 Glasgow Rd, Perth.
Redburn Redburn Computer Users Group.
Contact Ruby Anderson ☎ 01294 313624.
W. Lothian Amiga Computer User Club.
Contact Alistair Lyons, 18 Braehead, Bo'ness, W. Lothian, Scotland EH51 9DN.

N Ireland

N Ireland N. Ireland Amiga User.
Contact Stephen Hamer, 98 Crebilly Rd, Ballymena, Co Antrim BT42 4DS.
N Ireland Digital Intensity (diskmag).
Contact Simon Denvir, 40 Old Cave Hill Rd, Belfast BT15 5GT.

Special interests

Angus Amiga Musicians Club.
Contact Gavin Wylie, Guthrie Street, Carnoustie, Angus.
Basingstoke AMOS Programmers Exchange.
Contact J Lanng, 7 Majestic Rd, Hatch Warren, Basingstoke, Hants RG22 4XD.
Braunston Fen Amiga Boatowners.
Contact D Beet Lock, Branston Fen, Lincolnshire LN3 5UN.
Braunston Nr Daventry GFA Basic Forum.
Contact J Findlay ☎ 01788 891197.
Braunston Nr Daventry Amiga E Support Group.
Contact John Findlay ☎ 01788 891197.
Broadstairs AMOS Programmer Club.
Contact Gareth Downes-Powell, 6 Brassey Avenue, Broadstairs, Kent CT10 2DS.
Bury St Ed-munds Amiga Sports Fans.
Contact Jamie Last, York House, Church Road, Elmswell, Bury St Edmunds, Suffolk IP30 9DY.
Chelmsford ICPUG
Contact David Elliott ☎ 01245 328 737.
Dewsbury Ethos BBS.
Contact Steve Bell ☎ 01924 437 258, 909 Leeds Rd., Chidswell, Dewsbury, West Yorkshire.
Durham Under 18 PD User Group (JB's PD).
Contact J Blackburn, Longridge, Potters Bank, Durham DH1 3RR.
Glasgow 24-Bit Club.
Contact Gordon Keenan, 24-Bit Club, 6 Skirsa Square, Floor 1, Glasgow.
Highfields CDTV User Group.
Contact Gary Ogden, ☎ 01785 227059.
Huddersfield Third Dimension -3D Construction Kit Users.
Contact Tony Hartley ☎ 01484 460888, 19 Kipling Close, Lockwood, Huddersfield, West Yorkshire MD4 5HA.
Lingfield In Touch Amiga.
Contact P. Allen, ☎ 01342 835530, PO Box 21, Lingfield, Surrey RH7 6YJ.
London (Richmond) Micro Academy.
Contact Don Pavey ☎ 0181 878 1075.
London ICPUG.
Contact the Membership Secretary. Fax 0181 651 3428. ☎ 0181 651 5436
Lothian ICPUG.
Contact David Hope ☎ 01555 811 955.
Macclesfield ICPUG.
Contact Peter Richardson ☎ 01298 23644.
Maidenhead ICPUG.
Contact Mike Hatt ☎ 01753 645 728 (8pm–10pm).
Manchester CDTV Users Club.
Contact Julian Lavanini, 113 Fouracres Rd, Newall Green, Manchester M23 8ES.
New Whittington Digital Music Club.
Contact Roger Hunt ☎ 01246 454280.
Normanton BASIC Programmers' Group.
Contact Mark Blackall ☎ 01924 892106.
Rochford Ray Tracers.
Contact Neil Hallam, 12 Meesons Mead, Rochford, Essex SS4 1RN.
Romford Phoenix Demo.
Contact Frank ☎ 0181 597 4661.
Rotherham Marksman (Trojan Phazer).
Contact David Green, 67 Thicket Drive, Maltby, Rotherham, S. Yorkshire S66 7LB.
Solent ICPUG.
Contact Anthony Dimmer ☎ 01705 254969.
Swindon Amiga Video Producers' Group.
Contact J Strutton ☎ 01793 870667 (–9pm).
Swindon MUG – MED Users Group.
Contact Richard Bannister, 6 Glevum Rd, Stratton St Margaret, Swindon SN3 4AF.
Wallington Bible Bureau.
Contact AD ☎ 0181 669 7485.
Ware Gamer-Link.
Contact Stu, 28 Churchfield, Ware, SG12 0EP.
Witham Video Visuals.
Contact Chris Brown, 4 Lavender Close, Witham, Essex CM8 2YG.
Workington AMOS Programmers Group.
Contact John Mullen at 62 Lonssdale St, Workington, Cumbria CA14 2YD.
Worlingham Sliver BBS Online all cheap rates.
Contact Mat Tillet ☎ 01502 714 663, 27. Hillside Avenue, Worlingham, Beccles NR34 7AJ.

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Australia Amiga Users Group of Western Australia.
Contact Bill Sharpe-Smith, PO Box 595, Cloverdale WA 6105, Australia.
Australia Comp-U-Pal.
Contact Comp-U-Pal, 116 Macarthur Street, Sale, Victoria 3850, Australia.
Belgium AUGFL vzw.
Contact Lieven Lema, Meesberg 13, 3220 Holsbeek, Belgium.
Cape Town ICPUG
Contact Ken Turner ☎ +507 5131. Internet: kturner@aztec.co.za. 24 Du Plessis Avenue, Edgemead, 7441, Cape Town, S. Africa.
Denmark Danish AMOS User Group.
Contact Tom Poulsen, DABG, Postbox 127, 2640 Hedehusene, DK Denmark.
France Interceptor (Public Domain Softwares).
Contact Interceptor, 13 Avenue Jean Jaures, 73000 Chambery, France.
France 16-32 Micro.
Contact F Moreau, 132 Rue Jean Follain, 50000 Saint-Lo, France ☎ 315220 02.
France Maritime Amiga Club.
Contact CDR K Osei, GN Ships Refit Office, 51 Rue de la Bretonniere, 50105 Cherbourg, France. ☎ 33 33225447.
Germany Royal Air Force Amiga Club.
Contact Stan Young, HMF RAF Laarbruch, BFPO 43.
Germany Worldwide PD Club.
Contact Dave White, Berliner Strasse 39, 40880 Ratingen, Germany ☎ 02102 499729 (Germany).
Greece Amiga Pros User Group (member GAC)
Contact Stefanos Siopoulo ☎ 01 9349963. 52 Silvrias Str, N. Smyrni 171 23, Athens, Greece.
Greece Amiga Athens Club.
Contact Stefanos Papamichael, 9 Derfeld Rd, Patisia, 11144 Athens, Greece ☎ 01/2027973.
India Indian Amiga Friends.
Contact Bilal, 46 Paragon 405 Lokhandwaza Complex, Andheri (W), Bombay-400058.
Ireland Amiga Addicts.
Contact A Minnock, Clonkelly, Binn, Co Offaly, Ireland (send s.a.e.).
Ireland AMOS Users.
Contact Brian Bell, 8 Magnolia Park, Dunmurry, Belfast BT17 0DS.
Ireland City Centre Amiga Group.
Contact Patrick Chapman, 70 Ballygall Crescent, Finglas East, Dublin II, Ireland, ☎ 345035.
Ireland Commodore Users Group of Ireland.
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Malta Malta Amiga Club.
Contact Zappor, PO Box 39, St Julians, Malta, ☎ 440453
Portugal Centro Amiga/Via Lactea BBS.
Contact Rui Costa, 351 01 888 2245/49, Largo do Martim Moniz-C,C, Mouraria, 1 loja 408-1100 Lisbon, Portugal.
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Contact Sid Sanches, Portugal ☎ 062 831566. Apartado 6156, 3000 Coimbra, Portugal.
Singapore Singapore Sling.
Contact Eric Chai ML, Block 4 #14-413, Pandan Valley, Singapore 2159, ☎ 65 4680630.
South Africa Amiga Users Exchange (AUX).
Contact Ken Turner, 24 Du Plessis Avenue, Edgemead, 7441 Cape Town, S. Africa. Internet: kturner@aztec.co.za.
Spain Amiga Aga Exchange (España).
Contact S I Steele, Calle Ribadavia, 16-8-1, Madrid, Espana 28029. In English only please.
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Contact AUGS ☎ ++41 34 45 3078. Bahnhofstr. 7, CH-3426 Aefligen, Switzerland. BBS: +41 (0) 62 44 32 27.
USA Japan Amiga Group.
Contact: Rick Gardaya, PSC 78 Box 3876, APO AP 96326 USA. ■

If your user group isn't listed on these pages, please fill in and send the form below to:

User Groups,
Amiga Shopper,
30 Monmouth Street, Bath BA1 2BW.

Shopper User groups — AS49

Group Name: ....

Contact Name: ....

....

Contact Tel: ....

Contact Address: ....

....

Postcode ....

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Talking Shop

Another mixed bag of letters this month and, as I always say, the more feedback we get from you, the better. So get writing!

We have some competition winners in the box at the bottom of the page. If you're a winner, your prize will be on its way. And don't forget that the best letter of the month wins £25! So, if you want to ask our advice or just air your views, why not put pen to paper!

Hints 'n' tips

£25 Winner

In issue 47 you asked for suggestions about the new-look Amiga Shopper. Well, here are some of mine:

1. I would like to see a regular 'hardware tutorial/introduction to...' section which could focus on a different piece of hardware each month. The series could begin with a look at chips. This could be similar to the series run in earlier editions, but would go into slightly more depth, covering the range of microprocessors up to the 060 and placing the Amiga innards against those in IBM-PCs and all this RISC stuff. This, I think, would run nicely alongside the Assembler tutorials. The series could then progress on to other visible types of hardware, such as 'What Is A Genlock?', with an overview of how it works and the best of the current range.

2. I consider myself to be a novice where Workbench is concerned and I am sure that a regular beginner section on this would be welcomed by many new users. The section need only be a page long and could cover a different Workbench topic each month, such as what is MultiView, etc.

3. On the topic of Coverdisks, perhaps you could ask readers for their favourite type of PD program to put on the disk. I would personally like to see an astronomy program some time.

4. Still on the topic of getting reader feedback, when you are going to interview an Amiga personality, perhaps you could inform readers in advance so that they can send in potential questions (perhaps by E-mail) for you to ask.

5. A series of articles on 'How to get into different areas of Amiga computing' would be nice. For example, you could get an expert to give advice on how a reader can try to get into writing software for a living; the following month another expert may suggest ways to get into computer aided design, etc.

Mark Hughs
Glossop, Derbyshire

1) We run a Supertest of a particular kind of hardware/software product every month in Amiga Shopper. For example, if you turn to page 22 of this issue, you'll find a CD-ROM drive Supertest. And in the June issue of Amiga Shopper the Supertest will be on genlocks.

2) I will consider this idea, but in the meantime, the Public Domain section of the June issue is all about Workbench utilities.

3) A good idea. If anyone wants to see a particular type of PD program put on our ShopperChoice Coverdisk, please write in to Talking Shop and let me know. If we get enough letters asking for a particular subject, then we will endeavour to include programs of its type.

4) The people we use to interview industry figures for the mag are experts at getting the most information out of them and they work out the questions they are going to ask very carefully. But if there is a particular person/company who you would like to see featured in a future issue, then let us know!

5) Another good idea. We are already thinking about doing a series of features along these lines.

Competition winners

Photogenics competition on page 98 of issue 46 (February 1995).

The winners of six copies of Photogenics are:
Per Olsson from Sölvesborg in Sweden, Quinn Holmwood from Essex, James Griffin from Chandler's Ford, Hants, D. Waters from Holton Le Clay, Lincs, Trevor Sorrell from Spalding, Lincs and Ian Heath Upton, Wirral.

The winners of 50 Photogenics T-shirts are:
Jim Robson, Newcastle Upon Tyne, Nik Williams, Cardiff, H. W. Rutherford, Glasgow, Antoniio Luis Coelho, Monte Real, Tom Flanagan, London, Eric Cross, Adlington, Lancs, Dimitris Rainakis, Chania, Greece, A. Murphy, Anglesey, Gwynedd, Jill Dick, Chapel-en-Le-Frith, Stockport, Stephen Dunn, Washington, Tyne and Wear, Graham Robson, Stockton on Tees, Cleveland, Philippe Dumont, Nonceveux, Belgium, Jason Redway, Basildon, Essex, Tim Pearson, Elton, Chester, Mr Millar, Dunfries, Scotland, C McDonnell, Werneth, Oldham, Jens Strange Hansen, Maribo, Denmark, Jonathan McBrien, Huddersfield, W Yorks, John Swift, Sheffield, S Yorks, Tracey Bruce, Wolverhampton, Fred Brumby, Edworth, Doncaster, Derek Lawton, Crewe, Cheshire, Peter Bain, Pontygates, Dyfed, Egil Myhr Johansen, Norway, Mark Reilly, East Calder, West Lothian, Svein Kare Gunnarson, Stord, Norway, Chris Rainbow, Witney, Oxon, G Mackay, Peterlee, Co Durham, Alfredo Martins, Barroselas, Portugal,Andrew Harrold, Bridge Of Don, Aberdeen, Darren Bentley, Boston, Lincs, Steven Lee, Crawley, W Sussex, F.W. Barnes, Potters Green, Coventry, Chung Ming Ki Henry, Shantin NT, Hong Kong, Simon Etchells, Edinburgh, Graham Crabb, Andover, Hants, Robert Cook, Walton-on-Naze, Essex,Mrs DI Fenter, Much Wenlock, Shrops, Emanuel De Jesus, Albufeira, Portugal, Alan Scrase, Bristol, Stuart Wissett, Lydney, Glos, J Thompson, Farnham, Surrey, Steve Dyke, London, Paul Robinson, Barry, J McGuiggan, Glasgow, Carl Marshall, Doncaster, Ciaron Parnell, Dublin, Ireland, M T Milton, Bridgewater, Somerset, Robin Swann, Mold, Clwyd and WD Reid, Leyton, London.

Subscription competition winners from page 19 of Amiga Shopper March 1995

The five lucky winners of subscriptions to Amiga Shopper are:
(The subscriptions will run for 12 issues.)

Mr. M. Moore from Ipswich in Suffolk, Martin Steel from Carlisle in Cumbria, D. Rainafis from Chania in Greece, Mr. P Sisson of Lincoln and Tom Flanagan from London.

Congratulations to everyone who won a prize!

Help, I need somebody...

Help! You are my last hope...

I'm looking for a three-button Amiga mouse. OK, it's not the most amazing upgrade, but it is all I can afford to treat myself to.

Julie Brandon
Lancaster.

We've never heard of a three-button mouse for the Amiga at Amiga Shopper, neither have our colleagues at Amiga Format. If anyone else has, please write in and let us know.

Viral attack

As a pensioner and new to the A1200, I would like to ask some questions about viruses.

1. Am I right in assuming that all viruses stick to a disk which is infected and are not destroyed if the computer is switched off for a while and the infected disk loaded again?

2. If they are as widespread as I think they are, how come commercial companies have not researched anti-virus techniques which they can put on their disks to stop a virus from getting on it in the first place?!

I am sorry if you are asked these questions

Subjects of interest

Who do you want interviewed in Amiga Shopper?

£25 Winner **Write in to Talking Shop and tell us which industry figures, or what company's work, you would like to see featured in Amiga Shopper.**

And if you have any suggestions for features, then write to us at Talking Shop.

The star letter of the month gets £25. Now wouldn't that come in handy?

all the time from beginners like me. I have tried asking my grandchildren, but they are into consoles and haven't got a clue.

Mr C Burley
Dronfield, Sheffield.

1) Yep! If there's a virus already on a disk, it will not be destroyed by just switching the machine off. You will need a virus killer program, such as Virus Checker or VirusZ, available from any PD library (see page 94).

2) If a disk is write enabled, the computer can write whatever information it likes on to the disk. Viruses take advantage of special features of the Amiga's Operating System which means that there is no way of creating an AmigaDOS disk which is virus-proof.

You should rely on the program's mentioned above to scan any disks new to your system.

Amiga rules, OK?

Back in 1990, I bought my first Amiga, mainly due to its popularity and the amount of excellent flight sims available. Since then, I have gone from strength to strength and I now own an A1200 with a 120Mb HD and a GVP 1230 accelerator.

I mainly use my Amiga for DTP and find that it copes very well with the demands I put upon it. The ability for it to read PC disks is excellent and, without it, FTP on the Amiga would have surely died.

Sadly, most of my friends have sold their Amigas and moved to the dreaded PC, mainly because when they thought the time had come to upgrade their 500s and 600s, there where no 1200s available and they believed the Amiga to be a sinking ship.

We all know this sad story is being repeated everywhere, but I believe that in the next 18 months the Amiga will be back with a strong presence... I'm sure of it. I know, as we all sit back with baited breaths for the inevitable take-over to happen, the PC becomes stronger invading Amiga territory.

The message to all Amiga comrades is to stick with your machine and don't let any PC owner put your machine down. A year from now we will all be wondering what we were worried about.

Faron Jones
Aberdare, Mid Glamorgan

I am constantly amazed at the absolute devotion that our readers, and indeed readers of our sister Amiga magazines (Amiga Power and Amiga Format), have for their machines. And rightly so. The Amiga has so much more to offer than the humble PC.

Sadly, we still haven't got any firm news of the management buy-out of Commodore being completed at the time of going to press with this issue. But we do know that David Pleasance and his team are keeping themselves very busy preparing for the day that it all goes through, so they can leap straight into action and get Amigas back in the shops.

Into the Net

Could you answer these questions for me?

1. If you get a modern X-Link for example would that software be able to access the Internet, or would I need (TCP/IP) Transport Control Protocol/internet Protocol software. If so, how much is this software?

2. How much would it cost me to access the Internet?

3. Do they sell headsets so you can speak in the microphone and send it down the line, instead of typing on the keyboard?

Andrew Findon
Solihull, West Midlands

1. X-Link is a useful way of dialling in to a host system – it provides much faster access speeds than normal phonelines. However, you will need the relevant software to use with your Amiga. Fortunately for you, AMITCP is available in the Public Domain, so it won't cost you anything.

2. You will have to pay subscription charges to your host system. Shop around for the best deal to suit you. Some charge only monthly fees, whilst others charge for the time you use.

3. What you describe sounds very much like a concept called video conferencing. This will enable you to speak to and see any other person connected to the Internet who also has video conferencing facilities. There's no commercially-available Amiga software to do this at present.

Softly, softly

Amiga Shopper continuously makes the point that we, the Amiga users, must contact the software people, so that they know that there is a continued interest in products for the Amiga.

When I first obtained Deluxe Music Construction Set, I had problems with using it with my Star LC10 printer. I wrote to Electronic Arts and they confirmed incompatibility and sent a disk specifically for the LC10. Great!

When DMCS was upgraded to version 2, I

Can you do better? | Caption competition

£25 winner!

£25 Winner **David Taylor from East Grinstead in Sussex came up with the caption for the back cover of this month's issue (the picture was originally called The Beatles at the Palace, 1965). His £25 is in the post. If you think you can do better, then take a look at the back cover of this issue of Amiga Shopper, then at the picture printed below. and come up with a witty Amiga Shopper- (or, indeed, Amiga-) related caption to use in the next issue? If your wit surpasses the Amiga Shopper team's (though we doubt it, of course), then we'll send you a cheque for £25.**

Send your witticism to:

Can you do better?, Amiga Shopper, Future Publishing, 30 Monmouth Street, Bath BA1 2BW.

Entries to arrive at Amiga Shopper no later than Friday, 28th April.



Pic: Hulton Deutsch

End Of The Line.

Write to **Talking Shop**

To add your contribution to any of the debates going on on this page, send your letters to:

Talking Shop, Amiga Shopper,
Future Publishing,
30 Monmouth Street,
Bath BA1 2BW.

Alternatively, you can E-mail them to:
Letters@Amshop.demon.co.uk (Internet)
2:2502/129.1 (Fidonet)
240:370/0.50 (Mercurynet)

All letters received at these addresses will be considered for publication unless you specifically advise us otherwise.

wrote asking what improvements had been made and was it compatible with the 550C as I was having problems with printing. No answer after several months. So much for getting in touch with software houses!

It is not as if I want to change software, as DMCS does just what I want. It works in conventional music score and is ideal for writing for a traditional jazz combination. They obviously do not want the business.

Mick Clift
St Austell, Cornwall.

It's a shame you haven't had a better response, but don't be disheartened – if we don't let the software houses know that there is still a huge amount of interest in their Amiga products, they may be tempted to forget our machine.

Disk blues #2

While idly browsing through the April issue of Amiga Shopper, I got to Talking Shop and the letter called "Disk blues" and thought, "Here is someone with the same problems as me".

Then I reached the end of the letter and found my own name. I hope you don't mind me pointing out two small mistakes in the text "an address ERROR not address ZERO" and "a long word that is AT an uneven address".

Here is the additional information as you requested in the last issue.

1. Amiga 1500 with 50Mb hard disk and 4Mb Fast RAM.

2. Workbench 2.05.

3. I was trying to run the programmes from floppies after dearchiving and also tried to run them directly from RAM without saving in case the error had crept in in the copying process.

4. I have seen this error also in Imagine 3.0 run from the hard disk and it popped up after about a quarter of a render was completed. But not with Imagine 2.0 from floppies. The message said a little more this time "80000003 Deadend Alert-Task 002834D0-68000 Exception ECPT 03 Address error-Attempt to read or write a word or long word that is at an uneven address".

Meridian have offered to rewrite my disks in an attempt to sort their problem out, but I can't tell if it was successful yet.

5. I have John Veldthuis's Viruschecker running all the time from the hard drive on boot-up.

W. B. Tarbuck
Manchester

Since your letter appeared in our last issue, we've had a couple more queries from people having the same problem.

Basically, you're looking in the wrong place for the Womble.font and the libraries needed by Filthy Lucre. You'll find them in RAM: once you have unpacked the programs. This is because the libraries and fonts have been included in the archives for each program. Be sure to select 'show all' from Workbench's Window menu. ■

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Megabit Computers
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RJ Computers
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Silica at Debenhams
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Tel: 0117 929 1021

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Tel: 01752 266666

Hampshire Videocentre
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Tel: 0703 404773

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Tel: 0752 484114

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Tel: 0495 301651

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Tel: 0222 390286

Comtazia Ltd
204 High Street, Dudley, West Midlands, DY1 1QQ
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Jet Computer Systems
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Kettering Computer Centre
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Tel: 0536 410070

Screen Scene
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Tel: 0908 670620

T.M.J. Computer Software
39a Station Rd, Desborough, Northants, NN14 2RL
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Computer Mall
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Tel: 0234 218228

Get Real
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Mr Softee
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Tel: 0793 431193

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Chips Computers
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The Exchange
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Humberstone Computer Centre
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Long Eaton Software Centre
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Mansfield Computers & Electric
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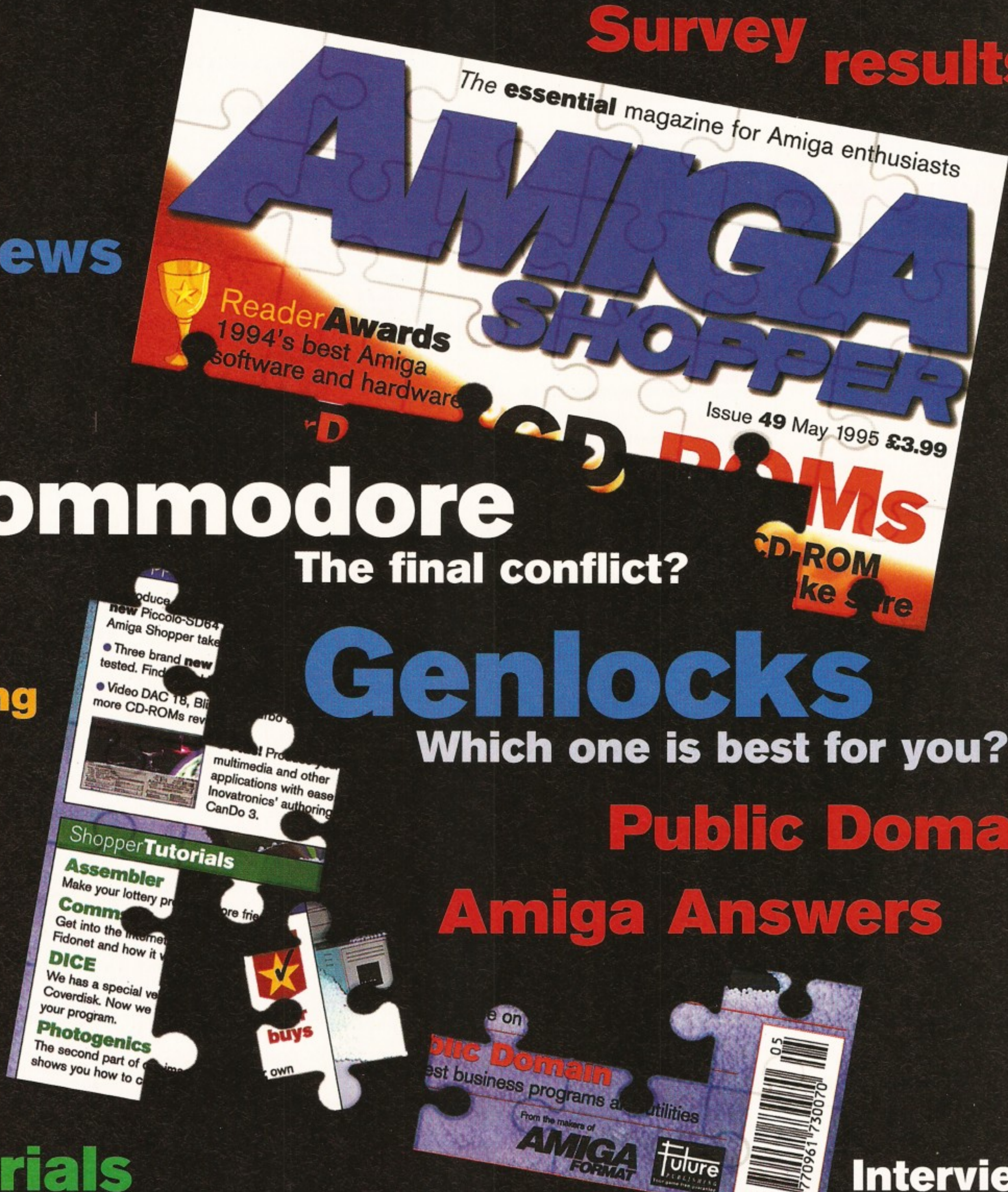
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Tel: 0343 552000

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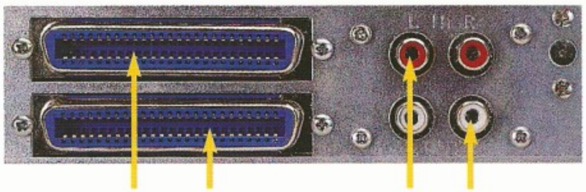
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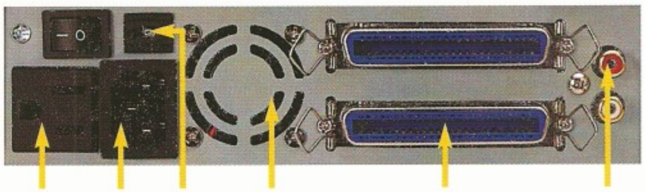
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